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SEEING AND THINKING.

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SEEING AND THINKING:

ELEMENTARY LESSONS AND EXERCISES

INTRODUCTORY TO

GRAMMAR, COMPOSITION, AND LOGICAL ANALYSIS.

BY

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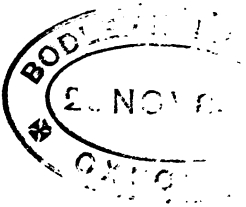

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PREFACE TO THE FIRST EDITION.

(ABRIDGED.)

SOME acquaintance with grammar and construction is the first requisite for the clear expression of ideas, even in our mother tongue. Hence these subjects find a place in every course of elementary instruction, and the young learner will, after a considerable expenditure of time and labour, probably produce a fairly grammatical exercise or essay. But, as a rule, little if any care is taken in such instruction to suggest to the pupil, or to develop in him, the ideas themselves which it is the business of language to express. Grammar-teaching gives little more than the instrument of composition, and a special training is needed to stimulate in the learner the conception and development of ideas.

It is the purpose of the following pages to aid in preparing young pupils for the work of composition by a series of easy and systematic exercises in observing and thinking for themselves.

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The first chapters begin with the simplest notions, illustrate the earliest elementary processes of thought, and go on to the development of the simple sentence, and its chief constituent parts. They thus proceed gradually from the primary conceptions of objects to their connexion and relations.

The succeeding portions go further in the same direction. In them the pupil is led to consider objects in their more extended relations, to compare and to classify them; also to distinguish between cause and effect, motive and purpose, means and end. The work being, however, elementary, its scope has been limited, and the exercises made as simple as the subject allows.

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PREFACE TO THE SECOND EDITION.

In their original form the following pages appeared, in 1860, under the title *Exercises in the Art of Thinking.* Owing to circumstances connected with the firm of publishers (Messrs. Aylott & Son, Paternoster Row) it became impracticable, in spite of the very favourable reception accorded to the book by the scholastic profession and the press, to satisfy the demand for a second edition immediately. Since then, Dr. Schaible has been prevented by his other engagements from devoting that full measure of time to the work which he felt would be needed for the desired modification of its plan: hence it is, that so long an interval has been allowed to elapse between the first edition and the appearance of the book in its present shape.

In preparing the exercises for the press, I have availed myself of notes written some years ago by Dr. Schaible for the earlier chapters of the second edition, notes in the composition of which he made considerable

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use of Dr. Emil Otto's *Anschauungslehre* (Stuttgart, 1851, 3rd Ed.). These notes, with omissions which appeared to me desirable, I have amalgamated with the first edition. In accordance with the full discretion allowed me by the author, I have, moreover, made a large number of additions, besides modifications amounting, in some instances, to a complete rewriting of the parts concerned. Amongst the additions may be mentioned almost the whole of the introduction, the references, the alphabetical index, and most of the grammatical explanations in the earlier chapters. The portions which were found to require least alteration from the shape in which they stood in the first edition are from Chapter IX. onwards.

Remarks on the objects the book is intended to serve, and suggestions for its use, will be found in the introduction. A few words may be said in this place on the arrangement of the subject-matter. The aim has been, more especially in the earlier chapters, to secure as much variety as is compatible with logical sequence, and no fixed and recognised order has been followed. Thus, for example, logical and grammatical information has, wherever possible, been made to

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alternate with practical lessons in observation; and, again, Voice is treated, not, as is usually done, together with Mood, but with the Complement of the Verb answering the questions *Whom?* or *What?*—for reasons more particularly stated in the text. In the later chapters, where the pupil is presumed to have reached a more advanced stage of knowledge, and to have gained in power of apprehension, the observation-lessons as such disappear; but ample exercise is given in the use and properties of elementary logical distinctions, by means of which practice will, it is hoped, be afforded to the critical and analytical faculties of the learner.

T. F. ALTHAUS.

London, 1883.

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SEEING AND THINKING.

INTRODUCTORY REMARKS AND SUGGESTIONS.

THE author's plan is based on the ideas of 1
many of the foremost practical educators, such as Rochow and Pestalozzi, to the influence of whose systems the great progress of experimental philosophy in Germany is largely due. The following exercises do not, however, profess to teach any branch of science: they are intended rather to rouse the faculty of observation in the pupil, by teaching him to discriminate the qualities of every-day objects, and to range them in a certain order. This faculty of observation—considered by many philosophers[1] as the foundation of all know-

[1] Bacon and Locke may be mentioned as typical examples among English philosophers. Bacon says (*Nov. Org.* I. i.): "Homo, naturæ minister et interpres, tantum facit et intelligit quantum de naturæ ordine re vel mente observaverit: nec amplius scit aut potest." Locke (*Essay of the Human Understanding*, bk. II. ch. i. 22): "Whence has

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ledge—has, in addition to the value it possesses in itself, a further claim to educational importance, when, as is the case at the present time, experimental science holds so high a place. Moreover, whilst developing the faculty of observation and awakening the attention of the pupil, the exercises will attempt to bring before him in an easy, half playful manner, first a knowledge of the single thing, and then
2 of the general notion. In this manner the way will be prepared for a comprehension of grammatical terms, the acknowledged difficulty of which to beginners makes it desirable that some introductory course should be gone through previous to grammar-teaching, instead of making grammar the subject of the most elementary instruction. Occupation with the mere formulæ of grammar is most pernicious for young minds not above the average in intelligence; for we take away from the learner,

---

the mind all the materials of reason and knowledge? To this I answer, in a word, from experience: in that our knowledge is founded, and from that it ultimately derives itself. Our observation, employed either about external sensible objects, or about the internal operations of our minds perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring."

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as it were, the thing itself, and give him the form; we substitute mere symbols for the actualities of experience and observation; and we draw off the attention from what alone mentally stimulates, charms, nourishes and strengthens the child in early years, and lead him to logical abstraction which bewilders him at the time and is not of importance to him until later. That words should not be mere meaningless symbols is of the utmost importance; and by guarding against this, much can be done to avoid the superficiality of knowledge which some of our modern educational methods have a fatal tendency to produce.[1]

To these remarks on some of the principles underlying the present work may be added a few suggestions to the teachers who use it.

Efficiency and success in teaching depend largely on the skill used in questioning: for fluency of speech and aptness of illustration

[1] Rousseau saw the necessity here insisted on of making every word convey some meaning to the mind and of restricting our use of words to such as actually do so, when he wrote (*Émile*, III. 33): "Je ne répéterai jamais assez, que nous donnons trop de pouvoir aux mots: avec notre éducation babillarde nous ne faisons que des babillards."

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may, without power of putting questions, still be accompanied with failure to instil real knowledge. On this subject Mr. Fitch, in a lecture on the *Art of Questioning*, has the following observations: "Questions, as employed by teachers, may be divided into three classes, according to the purpose which they may be intended to serve. There is first the *preliminary* or experimental question, by which an instructor feels his way, sounds the depth of his pupil's previous knowledge, and prepares him for the reception of what it is proposed to teach. Then, secondly, there is the question employed in *actual instruction*, by means of which the thoughts of the learner are exercised, and he is compelled, so to speak, to take a share in giving himself the lesson. Thirdly, there is the question *of examination*, by which a teacher tests his own work after he has given a lesson, and ascertains whether it has been soundly and thoroughly learnt."

4 The best examples of the first or experimental question are to be found in the method of Socrates. He believed that the great impediment to the acquisition of real knowledge is that ignorance which bears the semblance

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of knowledge: and it was against this conceit of knowledge without the reality that his teaching was mainly directed. The ignorant man has made a step in advance when he becomes conscious that he is ignorant, when he feels the vacuity of his mind and longs to fill up its emptiness with truth. The highest stage is that in which actual knowledge is possessed; it can only, according to Socrates, be reached after the second stage has been experienced and surmounted. He conceived that the best way to clear a path for knowledge was by representing himself as a fellow-learner with his pupils, sometimes even by asking them for information which he pretended he did not possess. In the course of this process, exhibiting the "Socratic irony," he both removed the impediments to knowledge and conveyed information. To some extent we have also, in the Socratic method, instances of the second kind of question, the question of actual instruction. For we repeatedly find him framing his questions in such a way that, without putting conclusions at once before his pupils, he led them on to such conclusions by a series of convergent

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questions. Here, again, he was, in his own view, an enquirer in the same field, rather than a teacher; and the community of interest and fellow-feeling thus established between teacher and learner, is one which it will always be of great educational value to reproduce, since it is stimulating in a high degree to the intellectual energy of the pupil, if he is allowed to look upon any new fact or combination of facts to which the questioning process has led, as a discovery in which he may justly claim some part. Socrates himself, it is true, though his method has a constructive or positive as well as a negative or purifying side, does not appear to have professed to lead his disciples to new discoveries: he claimed only to give them help in bringing to light those ideas which actually existed or
6 were latent in their minds. He did not, in fact, make his method necessarily or essentially a pedagogic method, though, with the above reservation, it may be applied as such. For, whilst Socrates probably presupposed a certain amount of experience and reflection in his hearers, previous to the time of the question, we may still be said to employ the

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Socratic method, when we start with a preliminary question, by means of which we, as it were, solicit the pupil to court experience, and afterwards, by a somewhat different kind of question, help him to make use of the experience he has won. In other words, we teach him, first to observe, then to think or reflect. We begin, accordingly, with intelligent observation of individual objects. In 7
our next step we still follow Socrates. It is, by means of that observation of individuals, to get at the general notion; *e.g.*, from the observation of a number of individual birds, to arrive at the general notion or definition of "bird." Or, to take one of Socrates' own examples, let it be required to find the general notion of a ruler. Now a ruler is popularly regarded as anyone who has the power to command. But this power is given on board ship to the best navigator, the captain or steersman; in illness to the physician; and so forth. A ruler, therefore, is one who possesses the knowledge requisite for ruling.

The Socratic method will accordingly form, 8
with the necessary modifications, the basis of

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the method employed in these exercises. It is, more than any other, likely to awaken the attention and curiosity of a young pupil, and to aid in his intellectual and moral development. "Curiosity," says Archbishop Whateley, "is the parent of attention; and a teacher has no more right to expect success in teaching those who have no curiosity to learn, than a husbandman who sows a field without ploughing it has a right to expect a good crop."

It should be one of our earliest endeavours to find out and bring to light what the pupil who has already had some instruction or experience knows, so that we may discover what foundation there is to build upon, and clear away misapprehensions. In bringing forward new information, we may establish a logical connexion between it and the pupil's previous knowledge; but great care is here necessary, more especially with young pupils, who, though able to assimilate single facts, find great difficulty in grasping anything like a chain of reasoning or a logical sequence. With such pupils, therefore, though the teacher may, and indeed should, have a

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logical plan, he should not aim at emphasising logical sequence in the actual communication of his knowledge. "He should impart information bit by bit, as the learner is fitted to take it, with many illustrations and digressions."[1] Our questions should be simple in language, yet definite and precise; they should suggest and direct the pupil's answer, while allowing play to any faculty of independent thought he may possess; and while encouraging his use of memory, we should exercise the greatest circumspection in not burdening it with dry and unnecessary facts.[2]

On the subject of attention it may be 9
allowable to transcribe the following valuable remarks from a lecture by Mr. Fitch:—
"Nothing, in the long run, (except fear, which I know you would feel to be a very

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[1] See some notes on this subject by Rev. E. Thring, Head Master of Uppingham School, in the *Journal of Education*, No. 49, New Series.

[2] Teachers who may wish to pursue the Socratic method further than has been possible here, will find a full account in Zeller's *Philosophy of the Greeks*, vol. II. part i. No. 2 of the second chapter in the first division (pp. 101ff. of the 3rd German Edition).—On Socrates as an Educator see also Schmidt's *Geschichte der Erziehung*, edited by Lange, 3rd Edition, pp. 53 ff.—There is an interesting and suggestive lecture on Socrates in Professor Ferrier's *Lectures on Greek Philosophy* (Philosophical Works, vol. II. p. 210).

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unsatisfactory motive) can keep a child's attention fixed but a sense of real interest in the thing you are saying. It is necessary that he should feel that the subject claims attention for itself, not that you are claiming attention for the subject. And of course the first condition to be fulfilled in order to secure this, is, that the teacher's own mind shall be accurately and abundantly prepared on the subject which he has to teach. It seems a trite thing to say to teachers that they should prepare their lessons. But I doubt whether many of us see the importance of preparation in its true light. Observe, I said a teacher should be *accurately* prepared. By this I mean that there should be no vagueness or indistinctness in his mind about what he is going to teach. He should not rely on a general impression that he comprehends the subject. He must have details—facts which he knows how to state with exactness—and a degree of nicety and precision about his knowledge, far greater than he can ever hope to impart to the children. Again, I said he should be *abundantly* prepared. This means, that he should store his mind beforehand, not merely with what

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he means to impart, but with a great deal more. He does not know what topic may grow out of the lesson; he cannot tell what questions the children may ask, nor what illustrations he may find most effective. So he should provide himself at all points. He should look *at* the lesson, and *into* the lesson, and all *round* the lesson, before he gives it, and become useful in his teaching. . . . .
One of the most efficient means of kindling 10
the interest and chaining the attention of children is the power of using good and striking illustrations. The best teachers are always those, who, in addition to a knowledge of their subject and the other qualifications which are necessary, possess also what may be called *pictorial power*. By this I mean the power of describing scenes and incidents so that they shall appear to a child's imagination as if they were really present to him. Now, we must always remember that the imagination is a very active faculty in a child. It is developed far earlier in the life of all of us than the judgment and the reasoning powers which we are generally so anxious to cultivate. Every teacher, therefore, should know how to address

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himself to this faculty, and should be able to gratify that love of description which is so natural to a child. Now, how many of us are there, I should like to know, who can tell a story well, or who can describe a thing which we have seen, so that those who hear our description shall almost think they can see it too? Yet a man is never a perfect teacher until he can do this; and no appeals to the reason and the conscience, and the feelings of a child, will be so effective as they might be unless we can also appeal to his imagination."

11 If the power referred to above is important in all teaching, it is particularly so when we have to instil into the pupil the habit of systematic and careful observation, and of clear, logical reflection on what experience has brought him into contact with. The cultivation of such habit will be materially promoted if the pupil is allowed first to describe an object actually present, and on a future occasion is asked to give an account of the same object when it has been removed. These exercises may be varied and made additionally interesting to children if one pupil is asked

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to describe some object that has been discussed at a previous lesson, without naming it, and the other pupils are invited to say, from this description, what the object is.

This training may even be supplied by 12
means of games, one pupil being chosen to give the first description, and the one who guesses the object described being allowed to set the others a similar task. The value of this half playful inculcation of knowledge must not be overlooked. Games occupy a very prominent place in the systems of Frœbel and Pestalozzi, who were the first to insist upon them, to any large extent, in practice. The theory is as old as Plato, who recommends this use of games in the *Republic*, and more explicitly in the *Laws*, where he says (p. 643B), "According to my view, he who would be good at anything must practise that thing from his youth upwards, both in sport and earnest, in the particular manner which the work requires: for example, he who is to be a good builder should play at building children's houses; and he who is to be a good husbandman, at tilling the ground; those who have the care of their education should

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provide them when young with various tools. And they should learn beforehand the knowledge which they will afterwards require for their art. For example, the future carpenter should learn to measure or apply the line in play; and the future warrior should learn riding or some other exercise for amusement, and the teacher should endeavour to direct the children's inclinations and pleasures by the help of amusements to their final aim in life." (Jowett's Translation, vol. v. p. 213).

13 The passage referred to in the *Republic* (bk. viii. p. 536E and 537A) is as follows: "Since no knowledge that has been conveyed by force is lasting, bring not up your children by compulsion but by playing and pleasure, so that you may moreover be able to see for what each is by nature best fitted." One great reason for the use of games for educational purposes besides that glanced at at the end of the last quotation lies in the fact that the mental strain is in this way considerably lessened for the child. The very fact of being at class-work is a restraint on him, and entails a loss of brain and nerve power. As soon as he is told that he is to have a game, that restraint

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almost wholly vanishes, and with it, in a large degree, the mental exertion implied in the assimilation of the information conveyed. But this, like other devices, requires care in its application. The teacher must watch his pupil and judge for himself when it is expedient more clearly to separate the spheres of work and play, so that the pupil may accustom himself to the more serious nature of the one and the more purely recreative nature of the other.[1] 14

Lastly, it cannot be too much insisted upon that, in the use of the following exercises, much is left to the discretion of the teacher. From his knowledge of his pupils he must determine what portions are to be omitted, amplified, or abbreviated; he must judge, from the results attained, when it is necessary to give additional concrete instances and practical illustrations, and he must remember that, throughout the course, it is intended that the pupils should be prepared, both for the explanations which are to be given, and for the exercises which are to test how far such explanations have been grasped, by

[1] On the use of pastimes in education compare also Ascham, *Scholemaster* (Arber's Reprint, pp. 43-45).

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preliminary questions judiciously set. Caution in these respects is at no time more essential than at stages where grammatical or logical explanations have to be offered, and where the danger of wandering into mere abstractions is consequently greater than elsewhere. Such a stage is, for example, the section on the *complements of the verb* (pp. 60, etc.). The plan of the book, no doubt, is based on a desire to make it available generally; but, for that very reason, the author is far from wishing it to be followed absolutely: on the contrary, such a proceeding would tend to produce that mechanical teaching in a groove which it is so necessary to avoid. With regard to grammatical explanations, the teacher will observe that the definitions of many common grammatical terms are omitted; *e.g.*, the distinction between common and proper nouns. This is accounted for by the fact that the book is not intended to take the place of a grammar, but rather to be an introduction to one, or, if grammars have already been used, to make intelligible some of the more difficult and often too brief explanations there given.

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15

CHAPTER I.

FIRST LESSONS IN OBSERVATION.

We have five senses,[1] by means of which we become acquainted with external objects. These senses are:

1. *Sight*, of which the eye is the organ.
2. *Hearing*, of which the ear is the organ.
3. *Smell*, of which the nose is the organ.
4. *Taste*, of which the tongue is the principal organ.
5. *Touch*, diffused over the surface of the body, but most active at the extremity of the fingers.

Such being, approximately at least, our means of observation, we may now proceed to illustrate their use. Exercises will first be given in the enumeration of objects observed, and in this enumeration the following questions will be kept in view, in the order here given: 1. Where are the objects? 2. Of what are they

[1] The old list of the five senses is not now held adequate to account for our various sensations. For a compendious statement of the results of more modern investigations on this subject, reference may, if necessary, be made to Bain's *Mental Science*, bk. i. ch. ii.

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made? 3. What purpose do they serve; what is their use? Following these exercises in mere enumeration will come a few easy exercises in classification, the examples being taken from the three natural kingdoms: animal, vegetable and mineral, and from ordinary natural phenomena.

16 *A.* Enumeration of Objects, Mainly Artificial.

(*a*) *Enumeration of Objects according to the Place in which they are.*

Ex. 1.

Name, as fully as you can, the objects that are in a schoolroom. Put together those objects of which only one is present, and form into another group those of which there are two or more.

Ex. 2.

Name the objects in a church. Mention those which are found both in a church and in a schoolroom.

Ex. 3.

What animals, implements, &c., are to be found in a barn? Give each word as we should say it (1) when we are speaking of one thing, (2) when we are speaking of several.

Ex. 4.

Enumerate the objects in a kitchen, such as utensils, food, &c.

Ex. 5.

Enumerate the objects in a cellar.

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Ex. 6.

Say what is in a stable, mentioning especially the servants, animals, &c.

Ex. 7.

Say what objects grow, or are found in, a garden.

Ex. 8.

Enumerate the objects in or near water. How many different kinds of water do you know, and where is each found?

Ex. 9.

Enumerate the objects in a field.

Ex. 10.

Name objects in the air and sky.

Ex. 11.

Name the objects belonging to a town or village, and mention their separate parts.

The foregoing exercises form a kind of intro- 17
duction to the object-lessons which follow, and should be extended according as the age and capacity of the pupil may require. Their chief aim is to teach the learner that certain objects exist, that they are to be observed, and that they are to be designated by exact and suitable names. The questions may be answered either *vivâ voce*, or on paper; more advanced pupils may be exercised in both

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methods. In the latter of the above exercises, the pupil may be required to group, or be aided in grouping together, objects of the same kind, and may also be asked occasional questions as to the use of some of the objects he has named.

It will be perceived that we have now had concrete instances of some of the simpler grammatical terms and notions; such as articles, nouns, singular and plural, &c.

18 (β) *Enumeration of Objects according to the Materials of which they are made.*

The observation of the pupil now becomes more enlarged. Having localised objects, *i.e.*, having determined where certain objects are to be found, and what objects are to be found in given places, his next step naturally is to examine the objects, to determine what they are made of. In this way he gradually comes to a point at which he can determine some property essential to a given object. At the same time, he begins to group them into two classes, according as they are products of nature or of art. The latter, being the more familiar to young pupils, will be considered

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first. In doing so, we shall be entering upon the elementary portions of Technology.

Ex. 12.

Enumerate as many objects as you can think of which are made of *wood.*

Ex. 13.

Mention objects made of *iron* or *steel*; also objects consisting partly of iron or steel and partly of other materials; name separately the parts consisting of iron or steel, and those consisting of other materials.

(Example of question: Why is a chain not made of wood?)

Ex. 14.

Enumerate objects made of *leather.* Mention also the various kinds of leather.

Ex. 15.

Enumerate objects made of *linen, cotton* or *silk.*

(This exercise can be extended by causing the pupil to enumerate the raw materials which can be spun into yarn, giving products similar to linen, cotton, and silk).

Ex. 16.

Enumerate objects made of *stone.* Mention also the various kinds of stone of which objects can be made.

Ex. 17.

Enumerate objects made of *paper.*

(Supplementary question: What is paper made of?)

Ex. 18.

Enumerate objects made of *earth* or *clay.*

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Ex. 19.

Enumerate objects made of *horn* or *bone*.

NOTE.—A short description of the animals and the above parts of them might here with advantage be given by the teacher.

19 To the above exercises may be added questions referring to objects made of metals: gold, silver, tin, lead, copper, &c.

It will be useful to accustom the pupil, by degrees, not only to group together objects of the same kind, as has been suggested above, but also, in addition, to give as complete as possible an enumeration of such objects, so as to prepare him for the understanding of the *denotation*, or *extension* of terms. "The extensive capacity of a term is measured by the number of individuals which it designates (denotes), the intensive or comprehensive capacity of a term by the number of attributes which it includes, suggests, or implies (connotes)."—(Fowler's *Deductive Logic*, part I. chap. ii. note.) The intension or connotation of terms will be arrived at when we pass on to the treatment of the qualities or attributes of objects (p. 157).

20 Thus far the following results have been attained: 1. The attention of the pupil has

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been aroused, and the first and indispensable condition of all teaching thereby gained. Though the eye has been mainly appealed to, care in the use of one sense quickly communicates itself to the others, and attention soon becomes an unconscious habit. 2. Facility in the use of language has advanced; the pronunciation and orthography of a number of words may have been learnt or corrected. 3. Some elementary grammatical notions have, as pointed out above, been acquired, and may be fixed in some such way as the following:—*(a)* What is a noun (substantive)? The name of a thing or object. Without nouns we should not be able to tell one another what is in a schoolroom, playground, or church. *(b)* What changes can take place in a noun? If we speak of one object only, the word denoting it is said to be in the *singular;* if of several, it is in the *plural.* *(c)* What words have no plural? Those denoting objects which, by reason of their special nature, cannot be counted, and the greater or less quantity of which is designated by words like "more," "much," "less," &c. *(d)* Which are the definite and the indefinite articles?

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21 (γ)—*Enumeration of Objects according to their Uses.*

The observation of the utility of objects is both desirable for a better comprehension of their nature, and useful for practical purposes in everyday life. The question, "What for?" is as natural to an intelligent observer as the question, "Whence?"—these two questions being themselves analogous to the enquiry into effect and cause.

Ex. 20.

Examine objects used for *clothing*. Class them according to (1) the special purposes they are intended to serve; (2) their materials; (3) the seasons at which they are used; (4) their wearers.

Ex. 21.

Enumerate objects used for *food*. (1) raw, (2) cooked. Of the latter form classes, according as the food is boiled, roast, baked, &c.

(It may be pointed out to the pupil that in using food it is required to show (1) temperance; (2) caution. With respect to the latter, some plants or fruits having poisonous properties may be mentioned.)

Ex. 22.

Enumerate *men*, according to the various uses they may serve, the various duties they may fulfil; according, that is, to their trades, professions, &c. Group together similar classes; *e.g.*, tradesmen who work in wood, leather, metal, &c.

Ex. 23.

Enumerate, according to the uses to which they are applied, the various *tools* and *implements*; also classify them

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according to the persons using them (carpenter, soldier, farmer, blacksmith, &c.).

B. Enumeration (and Elementary Classification) of 22 Natural Objects and Phenomena.

(*a*) *Animals.*

Ex. 24.

Enumerate *Quadrupeds.* Mention such quadrupeds as come under the various designations of (1) wild, (2) domesticated, (3) foreign, (4) indigenous.

(Short notes on the use, value, habitation, food, and sagacity of various animals might with advantage be offered by the teacher.)

Ex. 25.

Enumerate *Birds.*

(Birds have, like quadrupeds, flesh, bone and blood; but are distinguished from them by special characteristics, such as wings, feathers, two feet, beak, &c.)

Ex. 26.

Enumerate *fishes, amphibia, reptiles, worms.*

(The teacher should mention where the above animals live—*e.g.*, amphibia, both on land and in the water—and should give one or two examples of each class for the guidance of the pupil.)

Ex. 27.

Enumerate *Insects.*

(These may be described as very small animals, having six or more legs, and the greater number of which can fly; *e.g.*, flies, bees, &c.)

(*β*) *Plants.*

Ex. 28.

Enumerate some *ligneous plants.*

(Plants are natural products growing out of the earth. They are of two kinds: *ligneous*, or woody, such as trees and shrubs; and *herbaceous*, such as vegetables and flowers.)

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Ex. 29.

Enumerate *herbaceous plants*, mentioning as separate groups, grasses, vegetables, and fruits.

(γ) *Minerals.*

Ex. 30.

Enumerate *objects dug out of the earth.*

(The separate classes—metals, stones, and different kinds of
23 earth—might form subjects for distinct exercises.)

(δ) *Natural Phenomena.*

Ex. 31.

Mention appearances, or natural phenomena, seen in the air and upon earth or sea (lightning, clouds, rain, &c).

(The pupil may, if necessary, be asked to mention separately such as are watery, fiery, windy, volcanic, &c.)

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24 *Discovery and Designation of the Parts of an Object.*

Supposing the preceding thirty-one Exercises to have been worked out with the requisite completeness, the pupil has by this time named and observed—though of necessity superficially only—about a thousand objects. He has learnt, besides, to divide many groups of objects according to genera and species; he has made steps towards seizing the essential

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property of an object; and he has begun to think systematically. Beyond such superficial observations as we have been able hitherto to take, it is, however, necessary to enter into detail; to observe and define the parts, and even the parts of parts, of objects. Most objects in the world of sense, and most ideas in the mind, are compounds of different elements, just as a sum is made up of several numbers, and a product is the result of several factors. The faculty of recognising what parts go towards making up a certain whole, and what the whole is of which certain parts are the elements, is essential for the correct comprehension of objects and phenomena. The following series of exercises is designed to aid in the development of that faculty.

Ex. 32. 25

What are the parts of the *human head*?

Ex. 33.

After mentioning, in the last exercise, the chief parts of the head, the pupil may now proceed to the details of each. Thus, having named the face as part of the head, he may proceed to name the parts of the face, and finally, if necessary, the parts of parts, as, *e.g.*, of the eye.

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Ex. 34.

Enumerate the parts of a *carriage*.

(Variety in subject should be secured, with a view to the increase of the pupil's sphere of observation and vocabulary. The division into parts can be made on various bases, *e.g.*, of the materials, as wood, iron, &c.; or of the place, as foremost, middle, hindmost.)

Ex. 35.

Enumerate the parts of a *horse*.

Ex. 36.

Enumerate the parts of a *knife*. Mention the materials of which knives are made; also the chief kinds of knives.

Ex. 37.

Enumerate the parts of a *sparrow*.

26 In the above exercises we have been breaking up objects into their component parts, and viewing those parts separately. This process is termed *Analysis* (ἀναλύειν, to break up). The word *house* denotes a compound object, consisting of the various parts: wall, door, staircase, roof, room, furniture, &c. After this example, the following objects may be broken up into their parts, as further exercises in analysis:

Garden	Army	Country	Kitchen
Tree	Arm	Word	Musket
School	Book	Waggon	Knife
Church	Year	Man	Bird
Town	Clock	Table	Bed

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Side by side with Analysis, we may notice the reverse process of combining the separate parts composing an object, so as to form them into a whole. This latter process is termed *Synthesis* (συντίθημι, I put together). By it we are enabled to comprehend under the general idea of "fruit," the separate notions, "apple," "pear," "cherry," "apricot," &c.; and also, in a somewhat different way to combine the separate notions, "fields," "meadows," "woods," "hills," "rivers," "villages," "hamlets," "flocks," "cottages," "farms," into the general notion of "country."[1]

Ex. 38.

Four legs; no cleft in the hoof; skin covered with short, smooth hair; long hairy tail; limbs finely curved; ears short and pointed; eyes large and intelligent; motion graceful and swift. Food: grain and herbs.

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[1] There are, in fact, strictly speaking, at least three kinds of Synthesis: (1) the combination of species to form a genus, (2) the combination of portions of an object to form the object, (3) the combination of the qualities of an object to form, or more properly speaking, to determine, that object. In the case of Analysis, similar distinctions may be drawn.

In the following exercises the different data implied in the different kinds of Synthesis will sometimes be found combined in one example. Thus, in the first example, we combine the data of kinds (2) and (3).

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Ex. 39.

Chin; mouth; teeth; tongue; nose; eyes; forehead; hair; ears; arms; legs; speech; reason.

Ex. 40.

Benches; tables; books; slates; desk; chairs; pens; copy-books; pupils; master.

28 (It will be observed that in this example some of the things named do not come under any of the above three heads. These may then be described as "defining circumstances," and it is quite possible to get the notion of an object from such "defining circumstances" alone, though they are neither portions, properties, nor species of the object. If they are required to be brought under one of the three heads, they may indeed be described as properties; supposing, *e.g.*, we regard "master," "pupils," in the above example as standing for "the possession (or inclusion) of master, pupils, &c.")

Ex. 41.

Paved street; high houses; large buildings; squares; carriages; shops; churches.

Ex. 42.

Seat; back; four wooden legs; intended for the use of one person.

Ex. 43.

Fence; paths; flower-beds; vegetables; flowers; fruit-trees; summer-house.

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Completing or Determining Ideas, or Complements. 29

It is often necessary to add the name of one object to that of another, in order fully to express the idea we wish to convey. The word "child," *e.g.*, expresses an object, but does not designate which is meant; if, however, we say, "the child of the neighbour," or "the neighbour's child," the added words complete the idea: they are, therefore, termed the *complement*, or the *completing* or *determining idea* of "child."

Add to the following nouns similar completing words:

Height	Road	Water
Depth	Tower	Barking
Book	Ears	Tile
Bark	Leaf	Shriek
Light	Roof	Drawer
House	Ceiling	Beak
Sweetness	Root	Howling
Horns	Shade	Kernel
Wheel	Key	Sawing
Steeple	Floor	Width

By adding such completing or determining words we are, in fact, giving a nearer

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definition of the noun. Examples of this may, with advantage, be extended further.

30 The parts or properties of a knife may also be parts or properties of other objects. Thus, generally speaking, we should, when mentioning a part of some particular object, add to it the name of the object itself. This nearer definition of the noun commonly answers the question *whose?* or *of what? E.g.*, the edge. What is there, besides a knife, that possesses an edge? A razor, scissors, scythe, hatchet, sword, dagger, sickle, &c. To determine, therefore, which particular edge it is that we wish to speak of, we add the nearer definition "of a razor," &c., as the case may be.

According to this example, the pupil may be asked to give a nearer definition of the following words:

Ridge	Point	Side	Top	Name
Sign	Head	Back	Handle	End
Light	Base	Arm	Leg	Body
Neck	Foot	Bed	Course	Steps

It is clear, of course, that there are other definitions that may be added to names, besides those just mentioned. Such are nearer definitions of place, material, use, origin,

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answering to the questions, *where? of what material? what for? whence?* several or all of which may often be added to the same name.

The advantage of exercising the pupil in these nearer definitions is considerable. It lies chiefly in the practical demonstration afforded him of the various relations in which objects may be viewed, and in the stimulus thus given to thought. Such practice is moreover suggestive with regard to language, and plays an important part in laying a foundation for grammar.

Miscellaneous Exercises in Division, and on the Parts and Properties of Objects. 31

We may take a list of the parts and properties of one object and apply them to as many other objects as possible. If, for example, we take the parts and properties of a dog: flesh, bones, skin, hair, sinews, fat, colour, head, eye, ear, neck, &c., we can apply them as follows: the flesh of the cow; the bones of the cat; the skin of the rabbit; the hair of

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the horse; the fat of the pig, &c. According to this example:

Ex. 44.

Apply to other objects, the parts and properties of a *sparrow* mentioned in Ex. 37.

Ex. 45.

Enumerate parts of *clothing*, and add nearer definition by designating owners (*e.g.*, the hat of the father, &c.).

Ex. 46.

Enumerate parts of *tools*, adding nearer definition answering to the questions (1) of what material? (2) for what use?

Ex. 47.

Enumerate *instruments* or *tools*, adding nearer definition by designating the persons who use them.

Ex. 48.

Enumerate members of a *family*, and the names of the various degrees of relationship.

Ex. 49.

Enumerate *men* according to (1) *age*, (2) *occupation*.

Ex. 50.

Enumerate the outer parts of a *house*. Mention also the division and arrangement of the interior; and the building materials of which it is made.

Ex. 51.

Add words to the following nouns, further defining these nouns: stem, leaf, blossom, rind, pith.

(Here the pupil may be brought into contact with instances of the use of figures of speech).

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Ex. 52.

Parts of a *tree*. Enumerate (1) the chief parts, such as root, branches, leaves, &c.; (2) the general constituents, such as wood, bark, sap, &c.; (3) parts of parts—*e.g.*, of the leaf: stalk, edge, surface, veins.

It may be observed that, in some of the 32
cases above where nearer definition was added to a word by means of expressions such as "of the neighbour," &c., we might have given the same definition more briefly by forming what are called *compound nouns*, instead of adding a noun in the possessive to the first noun. Thus instead of "leaf of the mulberry," "wood of the pine," we may say "mulberry-leaf," "pine-wood," the first word of the compound usually serving to define the second. According to this example, compounds may be formed of the following words:

Ex. 53.

Wood	Paper	Ink	Brush	Glass
Light	Water	Bottle	Wind	Pen

Ex. 54.

Enumerate the various *divisions of time*. Name also the days of the week, and the months of the year.

(This exercise might be supplemented, if the state of the pupil's knowledge requires, by an explanation of the meanings of the expressions, "a.m.," "p.m.," &c., and by a statement of the table of time—60 seconds = 1 minute; 60 minutes = 1 hour, and so forth.)

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Ex. 55.

Coinage.

Ex. 56.

Measures.

Ex. 57.

Weights.

In each of the last three exercises, tables are to be given; and it is extremely desirable that the pupil should be afforded an opportunity of becoming practically acquainted with each element in the table, so that he may have some notion, for instance, of the size of a pint, or the weight of a pound. When the weights and measures have been enumerated, the pupils may,

Ex. 58.

Add to each term in the tables of weights and measures a designating noun; as "a pint of ale," "a pound of sugar," &c.

33 Hitherto we have been mainly concerned with enumeration, *i.e.*, mentioning separate objects. In the case of nearer definition, it is true, we have brought words together, and expressed a certain connexion between the objects they denote. But, even when the words have thus been brought together, the

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idea is still regarded as one, *e.g.*, "the neighbour's child," "the wooden horse." We have not explicitly affirmed any relation between two separate ideas. Such affirmation of a relation between two separate ideas is termed a *judgment.* Thus, the words "*dog*" and "*animal*" denote two separate objects and ideas: if we connect them by the word "*is*" we express a judgment, *viz.*: "*The dog is an animal.*" We here affirm one idea of another, the idea "*animal*" of the idea "*dog.*" In such a judgment, the idea about which the affirmation is made, is termed the *subject*, and the idea affirmed about or concerning the first is called the *predicate.* The subject, in other words, is the person or thing spoken about; the predicate is that which the person or thing spoken about is or is not. The word *is* (or in the plural *are*) is termed the *copula*, or word uniting the predicate with the subject.

Ex. 59.

Form judgments by affirming or denying suitable predi- 34
cates of the following subjects—

The Dog	The Whale	The Willow	The Ice
— Bee	— Lizard	— Rhubarb	— Moon
— Ass	— Salamander	— Cabbage	— Sun
— Frog	— Shark	— Violets	— Earth

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Subjects in reference to Ex. 59 *continued:*

The Lobster	The Duck	The Moss	The Grass
— Salmon	— Crocodile	— Rose	— Cloud
— Caterpillar	— Lark	— Marble	— Master
— Butterfly	— Stag	— Granite	— Farmer
— Canary	— Snake	— Flint	— Tailor
— Cow	— Snail	— Lime	— Trumpet
— Horse	— House	— Gold	— Painter
— Eagle	— Scissors	— Copper	— Watch
— Ape	— Table	— Iron	— Sofa
— Swan	— Tobacco	— Wine	— Musket
— Otter	— Pear	— Beer	— Piano
— Goose	— Oak	— Snow	— Lock

Ex. 60.

Form judgments by affirming or denying the following predicates of suitable subjects—

Sweet	Greedy	Hot	Eatable
Bitter	Sly	Damp	Juicy
Hard	Clever	Dry	Rough
Sour	Dull	Wet	Windy
Lazy	Sharp	Blue	Polite
Fast	Keen	Red	Impudent
Limp	Soft	Spotted	Ragged

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CHAPTER II. 35

ELUCIDATION OF IDEAS BY MEANS OF ENQUIRY INTO THE QUALITIES OR PROPERTIES OF OBJECTS.

In the last exercise we have used a number of words of a different kind from those previously met with. These words were words denoting the possession of a quality. The simple name of such quality would still be a noun; *e.g.*, "sweetness," "impudence;" but these words, meaning "having (or possessing) a certain quality" — *e.g.*, "sweet"—having (or possessing) the quality "sweetness;" "impudent"—having (or possessing) the quality "impudence"—are termed *adjectives*. We have, in former exercises, incidentally fallen in with qualities of objects. In the following exercises it is particularly with qualities that we shall be concerned, in order to become better acquainted with this new kind of word—the adjective or attributive

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word. The purpose of the exercises is, generally, to elucidate the notions of the pupil by an enquiry into qualities, and also, more particularly, to secure the accurate connexion of the adjective, or word denoting the possession of a quality, with the noun. The word "tree" and "largeness," *e.g.*, denote two separate things, an object and a quality. If we wish to bring the two ideas into connexion, we say "the tree *is large*" (*i.e.*, is [a thing] possessing the quality "largeness"), or "the large tree." In both these cases a judgment is involved, with the difference that while in the former it is expressed, it is in the latter implied only.

We may now proceed to the closer definition of a noun by means of an adjective; in other words, to the consideration of the qualities which an object possesses—of what the object is.

NOTE.—It will be more convenient, because clearer, to ask the question, "what qualities does *X* possess?" or "what are the qualities of *X*?" than to say "what is *X*?" but the answer must still by preference be given in the form "it is large, grey, hard, hollow, &c.," because it is not immediately desirable to use abstract nouns, a use which would be involved were we to require the answer in the form "It has largeness, greyness, hardness, &c."—For these abstract nouns, see below, p. 50.

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Closer Definition of the Noun by Adjectives.

Ex. 61.

(1) Connect as many adjectives as you can with the word *house.* 36

NOTE.—The pupil may, in this and similar exercises, be assisted by questions put by the teacher; *e.g.*, "What do you call a house that was built long ago? or one in which there is not room enough?" &c.

(2) Apply all the adjectives used in working out this exercise to other nouns—(*e.g.*, the small house; the small boat; the grey house; the grey hat).

Ex. 62.

Enumerate the qualities of a *tree.* (1. What qualities have trees? Green, leafy; possessing branches, a trunk, twigs, roots, &c.—2. What qualities has the particular tree you see before the window? It is young, high, spreading, with straight trunk, &c.—3. What are the qualities of the bark? It is smooth, hard, &c.—4. Of the trunk? It is thick, crooked, &c.—5. Of the branches? They are small, weak, pliant, &c.—6. Of the leaves? They are pointed, green, juicy, &c.—7. Of the fruit? It is soft, sweet, having a kernel, &c.—8. Of the blossom? It is fragrant, pink, delicate, &c.)

Ex. 63.

(1) Enumerate the qualities of a *dog.* (He is faithful, strong, brown, &c.)

Obs.—The teacher may either take dogs in general, or some particular dog known to the pupils, or both.

(2) Enumerate the qualities of the *parts of a dog.* (His ear is long, pointed, hairy; his head is large, heavy, intelligent, &c.)

(3) Apply the adjectives connected in (1) & (2) with

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the dog and parts of the dog, to other suitable nouns—(*e.g.*, the faithful friend; the pointed scissors, &c.)

Ex. 64.

Enumerate as many adjectives as possible applicable to *water*.

Cold, frozen, hard, warm, bitter, sparkling, &c.

37 In using adjectives, as above, with nouns, we have considered the quality as belonging to some particular thing. If, now, we consider the quality apart from the thing to which it belongs, or may belong, we designate the quality no longer by an adjective (requiring in virtue of its nature, a noun to qualify), but by a noun; since we have made, as it were, an independent thing or substance of the quality. Thus, when we consider the quality implied in the adjective *good* by itself, and apart from the thing to which it belongs, we get the noun *goodness*. These names of qualities considered apart from the things to which they belong, or may belong, are termed *abstract nouns (ab, traho*, I draw away), because the qualities are thus drawn away or separated from things.

[Besides these abstract nouns formed from adjectives, there are others which it is not at present necessary to consider.]

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Ex. 65.

(1.) Convert into nouns as many as possible of the adjectives used in the foregoing exercises on the qualities of water.

(2.) Take the nouns thus formed, and add other nouns by way of nearer definition.—(Not the noun *water*, since the applicability of the nouns here in question to water is implied by the applicability of the corresponding adjectives in Ex. 64).—*E.g.*, the clearness of the air; the bitterness of the almond, &c.

Ex. 66.

Enumerate the qualities of a child, (*a*) its outer, visible qualities, (*b*) its inner qualities.

The pupil is here introduced to moral notions. Under (*b*) it will be well to allow him to mention separately the qualities he thinks good and those he thinks bad. (Industrious, truthful, &c.; disobedient, false, ill-tempered, &c.)

Ex. 67.

Convert the adjectives used in Ex. 66 into nouns; employing, as far as possible, the same root (weak, weakness; strong, strength; truthful, truthfulness).

Ex. 68.

(1.) Apply the adjectives used in Ex. 66 to other nouns.

(2.) Take the nouns of Ex. 67 and add other nouns by way of nearer definition. (The strength of the bull; the weakness of the sheep, &c.)

Ex. 69.

(1.) Enumerate domestic animals.

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(2.) Mention their respective qualities.

(In mentioning these qualities, it will be useful to accustom the pupil to connect them in groups of two, by "but" or "and," thus teaching him which qualities are co-ordinate and which opposed or contrasted—*e.g.*, the faithful and watchful dog; the strong but gentle ox.)

Ex. 70.

Enumerate the members of a family, with their respective qualities, joining the latter as in the last exercise—*e.g.*, the severe but loving father; the kind and devoted mother.

Ex. 71.

(1.) Enumerate the qualities of a *road* (broad, rough, clean, &c.)

(2.) Change these adjectives into substantives.

(3.) Take the nouns of (2) and add nouns (other than *road*) by way of nearer definition, as before.

Ex. 72.

(1.) Enumerate the qualities of objects (gravel, dust, stones; grass, trees), which are on or beside a road.

(2.) Convert the adjectives into nouns, and apply the latter to other nouns, as before.

Ex. 73.

(1.) Enumerate the qualities of *man*, (*a*) outward and visible, (*b*) inner, or moral qualities. Of these latter, mention separately the good and the bad.

(2.) Change the adjectives used in (1) into nouns.

(3.) Apply the nouns formed in (2) to other objects, adding to each noun an appropriate adjective. (The extraordinary *size* of the clever *elephant*; the terrible *strength* of the fierce *lion*, &c.)

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It may now be remarked that the qualities 88
implied in adjectives may be possessed by some things in a greater measure than by others: the lion, *e.g.*, is *more terrible* than the wolf; the elephant *greater* than the camel. When an adjective expresses that the quality denoted by it is possessed by the object to which the adjective is applied in a greater measure than by some other object, then the adjective is said to be in the *comparative degree.* And when the adjective expresses that the quality denoted by it is possessed by the object to which it is applied in a greater degree than by all others of the same class, then the adjective is said to be in the *superlative degree; e.g.*, the *boldest* soldier—where the adjective expresses that the quality boldness is possessed in a greater degree by the particular soldier to which the adjective is applied, than by any other. When the form of the adjective is such that it expresses the mere possession of the quality denoted, then the adjective is said to be in the *positive* degree. In accordance with these examples,

Ex. 74.

Give the comparative and superlative of the adjectives used in 73 (1), and apply them to nouns.

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39

CHAPTER III.

QUALITIES WITH THE SUBORDINATE IDEA OF TIME.

In the preceding chapter we have been concerned with qualities or properties of objects as denoted by adjectives. These words tell us *how* objects are, what qualities or properties they possess. We may also have our knowledge of objects extended by means of words denoting what the objects do or suffer, and when they do and suffer certain things. These words, then, may also be said to define or determine the properties or qualities of objects. They are called *verbs*, and denote an action or a state: doing, being, or suffering. To these notions is added that of the time at which the action or state occurs; *viz.*, *past*, before the time at which we speak or write; *present*, at that time; *future*, after it.[1] Verbs, accordingly, may be said to determine or

[1] These explanations of the tenses will serve for elementary purposes. Of course the past and future may be so called relatively to some time other than that at which we speak or write.

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define—sometimes even to express—the quality or property of an object with the added notion of time.

Ex. 75. 40

(1.) Say what a child does (*a*) at school, (*b*) at home.

(2.) Say what a child ought or ought not to do (*a*) at school, (*b*) at home.

NOTE.—It is desirable that the teacher should, in setting the above and similar exercises, repeatedly point out to the pupil that the words here employed are not nouns and adjectives but verbs. By means of examples, the pupil should also be taught the distinction between the three *persons:* the first or person speaking, the second or person spoken to, and the third or person spoken of. This opportunity may then be further made use of for the explanation of the personal pronouns. (A pronoun is a word used instead of a noun in order to avoid the repetition or too frequent use of the noun.) The teacher should point out the reason why in the third person we have, at least in the singular—in the plural the distinct forms have either been lost or amalgamated—three forms for the three genders, whilst in the first and second persons we have only one form. The reason is, that whilst the person speaking or spoken to must in the nature of things be present (writing to persons absent would not be taken account of at the period of the formation of the language), the person spoken of is not necessarily present, and the gender therefore requires to be marked in a word substituted for the name. This explanation concerning pronouns will also involve some remarks on gender, if the teacher has not previously found it expedient to make them.[1]

Ex. 76.

Say what is done by persons of the following classes: 1. Workers in *wood* (they cut, saw, turn, &c.)—2. Workers

[1] In all cases the pupil's experience should be appealed to. It should be brought home to him that he has used different words in speaking himself (I) and in speaking of or to a person; also in speaking of a man, woman, and thing.

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in metal (they fuse, melt, hammer, &c.)—3. Workers in leather, linen, &c.

41 GRAMMATICAL EXERCISES ON VERBS.

Ex. 77.

(*a*)—State what you are doing now.

(*b*)—State what you did yesterday.

(*c*)—State what you wish or intend to do to-morrow.

Ex. 78.

Change the verbs *learn, write, like, beat, read,* &c., according to person; distinguishing the forms of the pronouns, where (1) one, or (2) more persons are speaking, spoken to, or spoken of.

Ex. 79.

Employ various verbs to indicate the use and properties of *water.*

Ex. 80.

Using the verbs of Ex. 78, change the present form for the three persons, singular and plural, into the past and future forms.

42 When the form of a verb is such that neither time nor person are indicated or implied by it, it is said to be in the *infinitive mood, e.g.,* "*walk,*" "*talk,*" "*help,*" "*learn,*" "*read,*" &c. There are certain verbs after which the use of the infinitive mood is especially frequent; words which, in fact, require an infinitive mood to be used with

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them in order that the sense may be complete. Such are "*let*," "*will*," "*may*," "*dare*," "*must*." These verbs, though they have a meaning when standing by themselves, do not express any complete meaning, and when we use the phrases "*He may*," "*I must*," we involuntarily ask the question, "*What may he do?*" "*What must I do?*"

Ex. 81.

Use the verbs *can* and *must* in the three persons and in the present and past tenses with the infinitive mood of various verbs.

Besides this infinitive mood, or indeter- 48
minate *mode* or manner of speaking, we have already become acquainted with another. When we state definitely and directly that a person does, has done, or will do, a certain thing, or is, has been, or will be in a certain state, we use the *indicative* mood, the mood of statement, which indicates or points out a state or an action in past, present, or future time. Another mood, or mode or manner of speaking, is used when we give a command or make a request. This mood is termed the *imperative*, *i.e.*, commanding mood, *e.g.*, "*Go*

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away," "*Show me your copy-book,*" "*Please give me a pen.*"[1]

Ex. 82.

(1.) Give instances of commands given by parents to their children.

(2.) Mention commands given by officers to soldiers under them.

(3.) Mention requests children may make of their parents or teachers.

(4.) Requests made by children of their companions.

44 It is easily observed that we may not only make a statement about a thing, but also ask a question about it; we may not only say what it is, but also ask what it is, or whether it is of a certain kind. Thus we may say "*Your friend is kind,*" and we may ask "*Is*

[1] As a rule, it will not be desirable to introduce pupils at this stage to the *subjunctive* mood. For those, however, who are sufficiently advanced, it may be described as expressing dependency, doubt, or possibility. It is called subjunctive because it is used in a sentence subjoined to or dependent upon a more important sentence. "Though he *be* weak, he is good-natured." Here "he is good-natured" is the main, or more important, sentence, to which "though he be weak" is subjoined. The subjunctive mood is usually employed after words such as *unless, though, except, provided, if, whether, lest.* This introduces a new word, the *conjunction,* which serves to join together two sentences. Conjunctions such as the above, which are followed by a subjunctive mood, are termed *subordinative,* because they serve to join a less important (from a grammatical point of view) to a more important sentence; and are opposed to *coördinative* conjunctions like *but, and, when.*

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your friend kind?" Such a sentence as the latter is termed a *question* or an *interrogation*, and the pupil may be asked to use *interrogatively* the sentences he has used of objects, *i.e.*, has stated *affirmatively*. Besides this, we may say what objects are *not:* we are then said to make *negative* statements; and the pupil may be asked, *e.g.*, to state what an animal, child, &c., is not. It may be pointed out to him that, whilst the indicative mood can be used affirmatively, interrogatively, and negatively, the imperative (and also the subjunctive) can only be used affirmatively and negatively. When we use the imperative negatively, we are said to forbid; and an exercise might be given in which the persons referred to in Ex. 82 forbid instead of commanding, and request not to do a thing instead of requesting to do it.

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CHAPTER IV.

COMPLEMENTS OF THE VERB.

THE pupil has already been made acquainted with complements or completing ideas of nouns (§ 29). It may now be pointed out to him that when we say "*The boy eats* AN APPLE" we have a more complete idea than when we say "*The boy eats,*" and when we say "*The dog runs* QUICKLY," we have a more complete idea than when we say "*The dog runs.*" Similar instances are "*The mole lives* UNDERGROUND," "*The moon shines* BY NIGHT," "*The river was swollen* BY THE RAIN." Thus verbs also may have complements or completing ideas added to them.

As a preliminary exercise the pupil may, on the analogy of the above instances, add complements or completing ideas to the following:

Ex. 83.

Trees blossom (when?). I shall leave England (when?). Elephants are found (where?). My friend died (why?).

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Your brother plays cricket (how?). The dog has bitten (whom?). I have seen (what?).

After multiplying instances similar to these, 46
the teacher may ask the pupil to mention the different classes of completing ideas which he has added, helping him to reduce them to proper order. The complements answer the following questions: (1) *whom* or *what?* (2) *when?* (3) *where, whence, whither?* (4) *how?* (5) *why?*

1. Complements answering the questions 47
whom? or *what?*

Complements answering the questions *whom?* or *what?* are termed direct objects of the verb. Thus in the sentence, *The cow eats the grass, the grass* answers the question *what* (does the cow eat), and is therefore the direct object of the verb *eat.* In the sentence *The master has a book, the book* is the direct object of the verb *has;* and in the sentence *The master gives a book to the boy, the book* is the direct object of the verb *gives.* This sentence furnishes an explanation of the word *direct* as applied to the object; for the word *boy* is

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termed the *indirect* object of the verb *gives*, since it is the object to which the action of giving is *indirectly* applied. The indirect object is that complement of the verb which answers the question *to* or *for whom? to* or *for what?* Verbs which can have a direct object, *i.e.*, which can have a complement answering the questions *whom?* or *what?* are termed *transitive verbs* (Lat., *trans eo*, I go or pass over) because they denote that the action passes from one thing to another,—in other words is done by one thing to another. It denotes, in fact, an action which is, or may be, done by a subject to an object (for explanation of *subject* see above, § 33; the subject is the name of that about which we speak or make an affirmation). A transitive verb may also have an indirect object, as shown by the above example: *The master gives a book to the boy.* Besides transitive verbs, there are also *intransitive* verbs, which cannot have a direct object, and express an action that does not pass over (*trans, eo*) from the subject to an object but remains with the subject. *The child sleeps* is a sentence with an intransitive verb; for the verb *sleeps* cannot have a

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complement answering the question *whom* or *what?* [1]

Ex. 84.

Form sentences with verbs denoting an action done by 48
one person or thing to another person or thing. (Special instances may be taken; *e.g.*, master and servant, teacher and pupil, parent and child.)

Ex. 85.

Form sentences with verbs denoting an action that cannot be done by one person or thing to another.

Ex. 86.

From the following list select and group together (1) transitive (2), intransitive verbs (3), verbs which may be either transitive or intransitive:

Kneel	Hide	Keep	Sell	Sleep	Wear
Lose	Pay	Spell	Tell	Think	Weep
Catch	Creep	Buy	Bring	Learn	Lean
Burn	Break	Build	Cut	Bend	Meet
Vex	Send	Spit	Spread	Spend	Shut

Ex. 87.

Form three groups of sentences, according to the above 49
grouping of verbs, using the verbs given.

The present will be the most convenient stage for the explanation of differences of *voice*, when the distinction between subject and object, and the import of the expression

[1] The cognate objective case, as in *He dreams a happy dream*, need not be taken account of here.

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transitive verb, are fresh in the pupil's recollection.

A subject, it has been said, is that of which we speak or make an affirmation. In the examples hitherto brought before us, we have become acquainted with the subject as the doer of the action denoted by the verb, and with the object as that to which the action is done by the subject. But, besides *doing*, verbs may, as remarked above, also denote *suffering;* and when the subject—that about which we speak or make an affirmation—is represented, not as doing, but as suffering or having done to it *the* ACTION *denoted by the verb*, then the verb is said to be in the *passive* or suffering (Lat., *patior*, I suffer) as opposed to the *active* or doing (*ago*, Lat., I do) voice.

The above explanation may fitly be introduced by the teacher by means of a series of preliminary questions based on sentences used in the previous exercises. Taking the sentence: *The master punishes the servant*, he may say *What would you say if you were asked what the servant has done to him by the master?* (He *is punished by* the master.) *Does the servant here do an action, or suffer one?* &c.

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Ex. 88.

Using the sentences of Ex 84, turn the verbs there employed in the active voice into the passive. 50

The teacher should now point out, that, as the subject of a passive voice suffers an action, or has an action done to it, it is, in a sense, at the same time the direct object. Now, as only transitive verbs can have a direct object, only transitive verbs can properly have a passive voice. This explanation may again, like the preceding, be made simpler for the pupil, if the teacher makes use of a practical introduction. He may thus first ask the pupil to turn into the passive voice a number of the intransitive verbs of Ex. 86; and, when this is found impossible, point out the principle, just explained, upon which the facts depend.

Complements of the verb (*continued*). 51

2. Complements answering to the questions *when?* or *how long?*

Complements answering to these questions are termed complements of *time*, or completing

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ideas with regard to time. If we take the two sentences:

My brother was ill yesterday.

Sailors are often absent from home for many years,

we see that whilst in the first the complement answers the question *when?* in the second it answers the questions *how long?* and *when?* The first and instances like it mark the *point of time* at which an action takes place, the second the *duration* of the action. If we now look at an example such as

The earth revolves round the sun in a year,

we observe that here the complement, strictly speaking, answers the question *within what time,* it is therefore said to mark *limit of time,* or time within which.

Here follow some further examples of the use of these complements of time:

(*a*) Point of time (*when*—)

Many animals sleep *in winter.*
At Christmas, the days are short in Europe.
Most trees sprout *in the spring.*
Many springs dry up *in great droughts.*
His father starts *to-day,* and intends to come back *to-morrow.*
The moon shines *by night.*
Cocks crow *at dawn.*

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(β) Duration of time (*how long?*)

Fir-trees are green *throughout the year.*
The camel can travel *ten days* without drinking.
Rome was mistress of the world *for several centuries.*
My brother has been away *for weeks.*
Methusalah is said to have lived *over nine hundred years.*
The stars were out *all night.*
Amphibious animals can fast *for many days.*
I shall be away *a short time.*

(γ) Limit of time (*within what time?*)

Good runners run nearly a mile *in four minutes.*
The earth turns on its axis *in a day.*
I shall be back *in a short time.*
Steamers go from France to England *in less than two hours.*
Express trains travel sixty miles *in an hour.*

Form sentences with the following words, 52
adding complements of time answering to the questions (α) *when?* (β) *how long?* (γ) *within what time?*

(α) *When?—e.g.,* The trees.....blossom. "The trees blossom *in spring.*"

Ex. 89.

The corn... to be ripe.	Ponds ..... to freeze.
Winter ... to begin.	Boys ..... to go to school.
The sun ... to rise.	Fowls ..... to go to roost.
Grapes ... to be ripe.	The cock... to awaken us.

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(β) *How long?—e.g.*, School .....to last. "School lasts *three hours.*"

Ex. 90.

The Romans.to rule England.	A man..... to sleep.
William I.. to reign.	A horse ... to live.
The rose ... to bloom.	A boy ..... to play.
The short-	The longest
est day... to last.	day ..... to last.

(γ) *Within what time?—e.g.*, The tide.....to ebb twice. "The tide ebbs twice *in a day.*"

Ex. 91.

An egg-boiler..... to run out.
An hour-glass ..... to run out.
The sun's light ..... to travel to the earth.
A traveller..... to travel from London to Paris.

In addition to the three main notions of time given above, there is the further notion of time, *how often.* In this, however, it is not the idea of time that is the essential element, but that of *repetition.* The complements denoting repetition answer the question *how often?* and are such as *often, rarely, once, thrice, never,* &c.

Ex. 92.

Write fifteen sentences, stating what you do in the course of the day, and to each statement add a circumstance of time.

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3. Complements answering the questions *where? whence? whither?* &c. 53

Complements answering to these questions are termed *complements of place*, or completing ideas with regard to place.

Taking the sentences:

I am *in London*,
He comes *from Paris*,
You are going *to Rome*,

we see that in the first the complement answers to the question *where?* and denotes place at or in which; in the second to the question *whence?* and denotes place from or out of which; and in the third to the question *whither?* and denotes place to or into which.

Besides these, which are the commonest forms of complements of place, there are others. Thus, we have expressions denoting direction, and answering to the question *along which road?* or *in which direction?*—*e.g.*,

I am going to Ireland, *viâ Holyhead.*

Again, we may have complements denoting

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(1) place or space throughout which—extent of space, and (2) place within which—limit of space, as in the case of complements of time, above ;—*e.g.*,

He has travelled *all over Europe.*
He is the best rider *in the county.*

In the second example we might say with a fair amount of accuracy that we have a complement answering to the question *where?* but it is more exactly described as denoting space within which, and answering to the question *within what limits?*[1]

54 In the following exercises, indicate, by underlining, the complements of place, and state what the special kind of complement of place is in each case.

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[1] It will thus be seen (though this is a point which the younger pupil will not so easily grasp, and which it is therefore left to the discretion of the teacher to mention or not) that these complements should be called rather complements of *space* than of place, for, just as in the case of time we have complements denoting (1) point, (2) limit, (3) duration, so in the case of space we have (1) point, (2) limit, (3) duration. Point of space includes place where, whence, and whither (and this is the complement of place proper); duration of space means space throughout which, as duration of time means time throughout which: and direction partakes in a certain measure of the two notions of point of space and duration or extent of space.

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Ex. 93.

1. The fish lives in the water. 2. That squirrel has climbed to the top of the tree. 3. The best silk comes from China. 4. Vapours rise from the earth. 5. He walked along Oxford Street. 6. He is the greatest naturalist in Europe. 7. I know of no better house in Oxford. 8. Water is found all over the earth. 9. The clouds come from the south. 10. The bird has built its nest by the river.

Ex. 94.

1. The bridge leads across the river. 2. The huntsman hastens to the forest. 3. The sailor has come out of the vessel. 4. The general was banished from his home. 5. The patient stays at home. 6. The mole lives underground. 7. He went home by the high road. 8. He was respected throughout the length and breadth of the land. 9. He was known far and wide. 10. He was the only Japanese in the place.

Form sentences by adding complements of place to the following unconnected words: 55

(*a*) *Where?—e.g.*, Tower.....to stand. "The tower stands *by the sea.*"

Ex. 95.

Pearls..... to be found.	Bird's nests... to be built.
The crab... to live.	The cherry.... to grow.
Flocks..... to graze.	The stars..... to shine.
London .... to be situated.	The Thames... to rise.
Iron..... to be found.	The ship..... to sail.

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(β) *Whence?—e.g.*, Warmth.....to come. "Warmth comes *from the fire.*"

Ex. 96.

Wine	..... to flow.	Leaves.....	to fall.
Snow	..... to come.	Smoke.....	to rise.
Sugar	..... to be imported.	Tea	to come.
Wool	..... to be obtained.	Metals.....	to be brought.
Rain	..... to fall.	Lightning..	to flash.

(γ) *Whither—e.g.*, The farmer.....to throw seed. "The farmer throws seed *into the earth.*"

Ex. 97.

Fishermen.	to throw nets.	Stones.....	to sink.
Shepherds.	to drive their flocks.	Rivers.....	to flow.
		Emigrants.	to go.
Balloons...	to ascend.		

Ex. 98.

Write fifteen sentences, each of which shall contain a circumstance of *place.*

(In addition to the above, a few sentences might also be given, if necessary, on complements denoting limit and extent of space. They are omitted here, as being concerned with the less ordinary usage.)

56 4. Complements answering to the question *how?*

Complements answering to this question are termed *complements of manner*, or completing ideas with regard to manner. These

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complements express the ways in which an action may be performed—*e.g.*,

This man swims *well.* (How?—well).
The horse runs *quickly.* (How?—quickly).

Form sentences by adding complements of manner to the following unconnected words —*e.g.*,

The snail.....to crawl. "The snail crawls *slowly*."

Ex. 99.

Lightning..... to gleam.	A good judge... to judge.
Nightingales... to sing.	Good pupils ... to listen.
The Thames ... to flow.	The wind ..... to blow.
Good soldiers .. to fight.	Parents.. to love their children.

5. Complements answering to the questions 57 *why? what for?* &c.

Complements answering to these and similar questions are termed *complements of cause*, or completing ideas with regard to cause. The action or state of one object is usually brought about by the agency of some other object: ice, for example, does not melt without the agency of heat. That which excites any change in the action or state of an object is called the circumstance of cause.

N.B.—Here, as in all other cases, the teacher should allow a number of instances to precede his explanation or definition. He

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should, *e.g.*, ask the pupils *why* a prisoner is punished? (Because he has done wrong.) *Why* does ice melt at the end of winter? (Because the warmth of the air is greater.) He should, after a number of such examples, point out that that which answers to the question *why?* is termed the circumstance of cause; and that in a sentence such as "The prisoner is punished because he has done wrong" it forms the complement of cause.

58 If we take sentences such as

1. The river was swollen *by the rain*,
2. A good child obeys *from affection*,
3. We distinguish trees *by their fruits*,
4. We should eat only *to support life*,

we observe that all the complements are complements of cause. And that description of them will suffice for elementary purposes. To such pupils, however, as are sufficiently advanced, it will be useful to point out the distinctions which exist. They may be told that although all the four complements above come under the head of cause, the term *cause* has strictly reference to some physical operation. To it corresponds the effect, *e.g.*: in sentence (1) the cause is the rain, the effect is the swelling of the river. In the second sentence we have a cause acting on our minds and influencing our *action*. It is then termed the *motive;* and to it corresponds the *deed*

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or *act.* Thus in sentence (2) affection is the motive, and obedience the deed or act. In sentence (4) the circumstance of cause is a *purpose, aim,* or *end*; that which we desire to attain. The purpose, aim, or end, is sometimes included under the head of *motive.*[1] That by which we attain our purpose is termed the *means.* Thus in sentence (4) supporting life is the purpose or end, and eating is the means. In sentence (3) we have a cause acting on our minds and regarded as influencing our *judgment.* The cause is then called the *reason* or *ground;* and to it corresponds the *judgment (conclusion, consequence* or *deduction).* Thus in sentence (3) the reason or ground is the difference in fruits, and the deduction, judgment, &c., is a decision as to the consequent difference in the trees.[2]

Here follow a few more instances of 59
complements of cause of the various kinds indicated by the foregoing explanations.

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[1] Bain's *Mental Science,* bk. IV. ch. iv.

[2] The precise meanings of the terms here defined are not quite fixed in popular usage. The aim has been to give the most usual significations rather than to express the strict philosophical import of the words in question.

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1. *Cause.*

Iron is expanded *by forging.*
Vapours ascend *owing to their lightness.*
Fir-wood is very useful *on account of its flexibility.*
The boy's face is tanned *by the sun.*
The plant faded *through want of light.*
Good wine improves *by age.*

2. *Motive.*

The wicked child obeys only *through fear of punishment.*
The ambitious man endures fatigue *for the sake of glory.*
Many a man is only honest *through fear of disgrace.*
The exile suffers privation *for love of his country.*
Many men are benevolent *from desire for gain.*

3. *Reason* or *ground.*

I judge *from their shapes and their feathers* that these animals are swans.
Judging *by appearance,* that boy must be ill.
To judge *by this man's countenance,* he must be very unfortunate.
By the behaviour of your friend, I think he must be very amiable.

4. *Aim* or *purpose.*

The student reads *for instruction.*
Yesterday my cousin took his fishing-rod to the river, *to fish.*
The boy plays *for recreation.*
This poor woman knits *to earn* her livelihood.
Some monarchs keep soldiers *to enslave* their peoples.

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Ex. 100.

In the following narrative, point out the circumstances of *cause*. 60

A boy went to the river to fish. Through want of caution, he fell into the water. A man, who was passing at the time, perceived the danger the boy was in by his cry of alarm. He plunged into the water for the boy's sake, and, with great exertions, succeeded in saving his life. Through the care of the man, who, judging from his dress, was a peasant, the boy, pale with terror, was brought home. The father, wishing to reward this bravery, offered money to the peasant, which the latter, from modesty and disinterestedness, refused. In consequence of the anxiety of the boy's mother, a physician was called in, who learnt his condition by feeling his pulse. The accident would, according to the doctor, have no serious effects; but, at his desire, the boy was put to bed. After a sound sleep, he awoke thoroughly recovered from the effects of his fright, and having learnt to be more careful in consequence of this accident.

Ex. 101.

Form sentences of the following words, adding, in each case a complement of *cause*—*e.g.*, Fire.....to be produced. "Fire is produced *by heat*."

Iron	to become rusty.	Water-mills.....	to be moved.
Grass	to dry.	Stones	to sink.
Windmills...	to be moved.	The Earth	to tremble.
Water.....	to be evaporated.	Water	to be frozen.
Steamers.....	to be propelled.	Sailing vessels..	to be propelled.

Ex. 102.

Affirm actions of the following subjects, and state a *motive* for the actions you affirm—*e.g.*, "Parents punish their children *because they love them*."

The virtuous man. The liberal man. The sailor. The slave The pupil. The hypocrite. The generous man. The despot. The peaceful man. The unfortunate man. The virtuous woman. The homeless wanderer. The affectionate mother. The medical man.

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Ex. 103.

Form sentences with the following words, and add to each predicate (see p. 45) a complement denoting *reason* or *ground*—*e.g.*, I infer that it has rained in the night, *for the gravel is quite wet.*

To trust..... our friends.	To distinguish..... wines.
To object ..... to flattery.	To condemn..... murderers.
To blame ..... thieves.	To like ..... travelling.

Ex. 104.

Employ the following phrases in sentences expressing a judgment or inference, and add a ground for such inference or judgment—*e.g.*, To be wealthy. "I think my uncle is wealthy, *for he keeps many horses and servants.*"

To be esteemed. To die. To be old. To be generous. To be well. To be satisfied. To be cold. To be angry. To be disappointed.

Ex. 105.

Form sentences of the following words, introducing complements implying *aim* or *purpose*—*e.g.*, To work. "The labourer works hard *to keep his family.*"

To travel. To take exercise. To save money. To be charitable. To eat. To be cleanly.

Ex. 106.

Form fifteen sentences relating to common events of life, and in each sentence insert a circumstance of *cause* (in the wider, more general sense; *i.e.*, including cause, motive, ground, and purpose).

61 The predicate may be defined by several circumstances at the same time. These circumstances may be of the same kind, *viz.*, of *place*, *time*, *manner*, or *cause;* or they may be of

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different kinds, *i.e.*, circumstances of place, time, cause, or manner, may all be given in the same sentence—*e.g.*:

My book is on the table in my room.

In spring the lark sings merrily in the air.

Yesterday (*time*) a boy on his way to school (*place*), in mere wantonness (*cause*) cruelly (*manner*) ill-treated a dog.

Ex. 107.

Point out, in the following sentences, the complements of place, time, manner, and cause:

1. In many countries great damage is often caused, during the summer, by hail-storms. 2. In autumn, swallows migrate to warmer countries. 3. An honest youth has restored to the poor man the purse which he inadvertently lost a fortnight ago while taking a walk. 4. Last night the dog in the courtyard barked loudly on account of the thieves who were trying to force an entrance into the house. 5. Man, weary of the tumult of life, looks forward hopefully to the time when, in retirement, he can enjoy rest. 6. We carefully cultivated the trees in our garden; consequently, last autumn, they produced some very fine fruit. 7. At the present day, the arts and sciences have considerably progressed in countries formerly sunk in ignorance. 8. Literature and the arts began to be developed in England in the reign of Alfred the Great, owing to the encouragement which that monarch afforded them.

Ex. 108.

Form sentences with the following words, and include complements of two or more different kinds (place, time, manner, or cause) in each.

1. My brother wrote to his master. 2. The river inundated the country. 3. The orator spoke. 4. Birds build their nests. 5. The errand-boy has lost his way. 6. Misers heap up riches. 7. The thief escaped. 8. The rose blooms. 9. The wolf fled. 10. The ice has melted. 11. Children amuse themselves. 12. The lightning has struck. 13. Clouds fly.

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In addition to general examples like the above, special exercises may also be set on given subjects. It may be required, for instance, to write fifteen sentences on English or Scripture History, or some part of them, two or more complements of place, time, &c., being inserted in each sentence; *e.g.*, "Newton was born in 1642, at the Manor House, Woolsthorpe." "John Wiclif was born in 1324 at Wicliffe, in the county of York; he studied at Oxford."

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CHAPTER V. 62

DETACHED SENTENCES ON INDIVIDUAL OBJECTS.

Conjunction or Correlation of Ideas, or Formation of Judgments, Connected Language, or Sentences.

In the foregoing pages we have frequently had occasion, in the exercises, to use sentences, to express judgments; but we have only been concerned with them incidentally: and, whilst this use forms in some measure an introduction facilitating their further employment, the following exercises are designed to afford special practice in their formation. And there can be little doubt that it is more stimulating to thought, at the outset, to have to build up sentences on given subjects than to break up given sentences into their grammatical or logical constituents.

In the first chapter we were concerned with the enumeration of objects, first according to the place in which they were; then according

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to the materials of which they were made, and lastly, according to the uses to which they were applied. Adhering, as far as possible, to this arrangement, we shall go over some of the old ground, taking the place where things are as basis, and inviting the pupil to form sentences about their parts, the materials of which they are made, and the uses to which they are applied. He may also be asked to add particulars regarding the qualities of the things about which he makes such affirmations.

63 Ex. 109.

Form sentences on the objects in a schoolroom; mentioning their parts, the materials of which they are made, the workmen who make them, and the uses to which they are applied; *e.g.*, The table consists of the board and four legs. It is made of wood by the carpenter. It is used for placing other objects, such as books, inkstands, &c., and for writing, reading, or eating at.

Ex. 110.

Write sentences on the objects in and about a church; *e.g.*, The pillars consist of various blocks. They are made of stone by the mason. Their use is to support the roof.

In the same way we may use Exercises 3–11, requiring the pupil to form sentences on objects instead of merely enumerating them. Where the objects are not artificial but natural, it will

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not be necessary to mention the author or maker of them, and as a rule the materials of which they consist may be omitted, since mention of these would lead beyond the elementary stage of the pupil's knowledge.

Similar practice may also be based on the early exercises where the materials of which objects are made are given; and the pupil may then be asked to form sentences stating where such objects are, and to what uses they are applied.

Where the uses of objects are given, exercises may be set in the formation of sentences on the places were they are found and the materials of which they are made. This would bring us to the end of Ex. 23.

Still proceeding on the lines of the early exercises in enumeration, sentences may now be given on some natural objects and phenomena.

Ex. 111.

Form separate sentences on the following animals, giving particulars of their size, shape, parts of body, colour, place of abode, food, good and bad qualities, usefulness to man, &c.; *e.g.*, The horse is large. It is of graceful form. It has four legs. It is black, white, brown, or grey. It lives with man. It eats grass, hay, clover, corn, &c.

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It is good-tempered and intelligent, rarely vicious or deceitful. The horse is very useful to man. It is used for drawing carts, for riding, and for setting in motion certain kinds of machinery.

The cow. The goat. The ox. The cat. The dog. The wolf. The bear. The mouse. The stag. The hare. The rabbit.

64 By this and by the following exercises on animals, and plants, and natural phenomena, the pupil becomes accustomed to express himself on ordinary objects, in consequence of his being made to observe them carefully and intelligently. He will thus be aided in observing, in future, less common objects, and in understanding such descriptions of them as may be given. In a few cases, rarer instances will be taken, in order to exercise the pupil in describing objects he may have only read of, or heard described, not seen himself.

Ex. 112.

Birds. Form similar sentences on the following birds:

Crow. Sparrow. Hawk. Goose. Duck. Hen. Canary. Swan. Owl. Cuckoo. Dove. Lark. Nightingale. Swallow.

Ex. 113.

Fishes, Reptiles, Amphibia, &c.

Shark. Trout. Herring. Eel. Crocodile. Toad. Frog. Turtle. Snake. Snail. Worm.

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Ex. 114.

Insects.

Fly. Butterfly. Wasp. Grasshopper. Cricket. Blackbeetle. Ant. Spider. Caterpillar. Silkworm.

Ex. 115.

Plants.

Rose. Sunflower. Lilac. Lily of the Valley. Oak. Beech. Fir. Broom. Heather.

Ex. 116.

Minerals.

Gold. Silver. Iron. Copper. Tin. Zinc. Pebble. Flint. Chalk. Clay. Marble. Sandstone.

(Owing to the ignorance generally found on the subject of metals and other minerals, the teacher might with advantage give brief particulars, regarding the places where they are found, the means of purification, and some of the elementary properties.)

Ex. 117.

Natural Phenomena. 65

(Here, as in some former exercises, a special previous explanation by the teacher will in most cases be desirable.)

Wind. Vapour. Smoke. Fog. Clouds. Dew. Hoar-frost. Rainbow. Thunderstorm. Earthquake. Volcano.

(*E.g. Rain* consists of drops of water falling from the clouds. When the drops are very small, it is a drizzling rain; when they are large and frequent, a shower; when a very large quantity of rain falls, it is said to rain in torrents. Frozen rain-drops are called hail. Sometimes several of them freeze together and form large hail-stones. When the vapours in the air freeze, snow is formed and falls to the earth in flakes. Rain is very necessary to plants and animals, &c.)

For preliminary questions, either preceding or following (according to the state of the pupil's

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knowledge) explanations by the teacher, the following may serve as examples:

Thunderstorms. 1. In what season are they most frequent? 2. What is the previous state of the atmosphere? 3. What effect has such a state upon men and animals? 4. What signs do you observe in the sky, indicating the approach of a storm? 5. What may be heard? 6. What usually precedes a storm? 7. How do you know that it is near? 8. What damage is sometimes caused by lightning? 9. How can buildings be protected from it? 10. What does the lightning most frequently strike? 11. What precautions must we observe, if we happen to be out during a thunderstorm? 12. What precautions should be taken at home? 13. By what are such storms almost always accompanied? 14. What is the state of the air after a storm? 15. What beneficial effects has it upon men and animals? 16. What are the useful consequences of storms?

66 It will be advantageous to give a final exercise or exercises in this section on the human body, its divisions and sub-divisions, and some of the properties of its parts.[1]

67 With the last exercise we have reached, for sentences, the stage corresponding to Ex. 31 for enumeration. After Ex. 31 came the

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[1] A preliminary explanation will be advisable. Particulars might be taken from an elementary book, such as Dr. Michael Foster's *Primer of Physiology*, in Macmillan's series of Science Primers, edited by Professors Huxley, Roscoe, and Balfour Stewart.

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enumeration of the parts of objects; and the pupil may now be required to form sentences on the parts of objects, taking as basis Ex. 32--37. After the enumeration of parts of an object, we proceeded (p. 47) to the enumeration of qualities: in like manner we now proceed to sentences ou qualities. Practice in forming such sentences is particularly useful. The pupil will be required to form sentences describing or defining the names of qualities used in Ex. 61ff., somewhat on the following plan.

Ex. 118.

Description or definition of the qualities of a *house*. Write sentences defining the following names of qualities of a house.

High Old. Narrow. Uncomfortable. Thatched. Ruined.

E.g., Old. A thing is *old* which has lived or existed for a long time.

Ex. 119.

Qualities of a *tree*. Form sentences defining the names of the qualities of a tree. (Cp. Ex. 62.)

Ex. 120.

Qualities of a *dog*. Form sentences defining the names of the qualities of a dog—*e.g., Watchful.* The watchful dog is on his guard, and springs up and barks when he hears

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a noise or sees a stranger. A person or an animal is *watchful* who is always on his guard and does not give himself up to sleep or idleness.

Here, as in the other exercises of this section, sentences may be formed in which the names of qualities are applied to objects other than those with which the exercise is more particularly concerned.

Ex. 121.

Form sentences descriptive of the qualities of *water*. (Cp. Ex. 64). *E.g.*, Water is said to be *clear*, when it contains no animal, vegetable, or mineral substances, and is consequently transparent. Examples of qualities to be described:

Frozen. Hot. Sweet, Fresh. Stagnant. Foul. Fresh. Still. Rapid. Deep. Colourless.

Ex. 122.

Form sentences descriptive of the qualities of a *road*—*e.g.*, A road is *frozen*, when it has been made hard by frost.

Broad. Narrow. Crooked. Even. Steep. Damp. Muddy. Slippery. Paved.

Ex. 123.

Form sentences descriptive of the qualities of a *child*—*e.g.*, A child is *compassionate*, who is touched by the misfortunes of others.

Strong. Healthy. Studious. Wicked. Attentive. Quiet. Modest. Envious. Honest. Respectable. Ill-behaved. Selfish.

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Supplementary Exercises in the Formation of Sentences.

The above exercises in the formation of 68
sentences, not necessarily connected, on separate objects, may with advantage be supplemented by practice in sentences on such objects written on a particular model, though not, any more than the foregoing, necessarily connected logically as the sentences in an essay would be. The sentences will, however, improve the pupil's facility in expressing himself, and form a further step in advance in the direction of essay-writing. The particular model referred to, upon which it will be found useful to write these sentences, is the following: 1. Mention what are the parts of an object. 2. Describe the parts. 3. Describe some other object belonging to the same class as the object in question; if the object be a genus, describe one of the species coming under it.

E.g., in the case of a *Tree*: 1. Mention the parts of a tree. 2. Describe them. 3. Describe an oak, beech or

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fir, &c. "The *tree* has three principal parts, *viz.*, the root, the trunk, and the crown or branches. The root is in the earth and draws nourishment from it; the trunk stands upright on the ground; the branches spread in all directions, and bear leaves, blossoms, and fruits. The trunk and branches are covered with a bark. The blossoms appear in spring; the fruits begin to grow in the summer and ripen in the autumn. Then the leaves become yellow, wither and drop off, and in the winter the tree stands bare. The *oak* tree grows very slowly: its leaves appear latest but remain longest. It sometimes reaches an age of a thousand years. Its fruit is called acorn, and is used as food for some animals, especially for pigs. The wood is very hard and durable. The bark is sometimes taken off in spring, dried, ground, and used in the manufacture of leather."

According to this example, write sentences on the following:

Ex. 124.

Book. House. Butterfly. Quadruped. Fish. Boat. Carriage. Bird.

69 If necessary, further supplementary exercises in the formation of sentences may be set. The pupil may be required to form a series of descriptive sentences, *e.g.*, on the *family*, on *coins*, on *weights* and *measures*, on the *food* of man and of various animals, on the *speech* of

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man and the *sounds* produced by various animals, on the *abodes* of man and animals, on their various *modes of attack and defence*, on their various *actions* or *movements*, &c., all of which will require observation of surroundings by the pupil. It will also be exceedingly useful, and a great incentive to accurate observation, if sentences on the *forms* of things are set. These latter exercises will present an occasion to the teacher for the introduction of some elementary explanations of various geometrical terms, such as *perpendicular*, *oblique*, *straight* and *curved* lines; *right*, *acute* and *obtuse* angles; *square*, *parallelogram*, *diagonal*, *circle*, *radius*, *diameter*, *arc*, *chord*, *circumference*, *centre*, *triangle*, *polygon*, &c., on all of which exercises might be set, as well as on the forms of regular solids (*cone*, *pyramid*, *sphere*, *cube*, *cylinder*), and of objects of ordinary experience, such as the parts of the human body; the parts of a building; hurdles, rakes, ploughs, and other objects found in the country, &c. It is needless to add that, in giving explanations of the geometrical forms instanced above, the teacher is not supposed to adhere to strict mathematical definitions, but rather

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to give easily intelligible popular descriptions, illustrated by frequent reference to concrete examples. (A ball is used to illustrate a sphere, a sugar-loaf for a cone, a die for a cube, &c.)

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CHAPTER VI. 70

OBSERVATION OF MORAL QUALITIES, AND OF MORAL RELATIONS BETWEEN MEN.

If the object of training the young is to be education in the best sense of the word, not merely instruction, then morality occupies a place at least equal in importance to knowledge, and the formation of character is to be made at least as essential a point as intellectual acquirements. The recognition of this principle is at the root of much that is excellent in English public school education. That system at the same time keeps in view the fact that general surroundings, and the spirit pervading an establishment, have as much, or more, to do with the production of the desired result, as dogmatic inculcation of the maxims of right and wrong. It is far from the author's intention to underrate the value of this tacit influence, which rarely fails to leave its impress for good on those who

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have been brought under it; nevertheless, it appears to him that to direct the observation of the pupil to moral qualities, and moral relations between men, cannot but aid in bringing about that self-knowledge and self-examination which is one important factor in rectitude of life. With respect to the question whether religious instruction should precede or follow the communication of elementary moral principles—that is one which it would be out of place to discuss here. Many authorities, with whom the author is disposed, up to a certain point, to agree, are of opinion that religious instruction can only be given to a child with any profit, after he has passed through a course of moral training quite separate from it. Mr. Fitch, in his *Lecture on the Art of Securing Attention*, has the following remarks in this connexion: "Until it pleases God to impart to a little child, either through the instrumentality of wise teaching, or otherwise, an appetite for sacred truths, he has no natural curiosity about them. He *is* naturally very inquisitive about the things that immediately surround him; he is curious to learn about

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the sun and the moon, and the stars; about distant countries; about the manners of foreigners; about birds, and beasts, and fishes; nay, even about machines and many other human inventions; but about the nature of God, and about man's relation to Him, and the great truths of revealed religion, there is rarely any strong curiosity in a child's mind. You do not find the appetite for such knowledge as this already existing there. You have to create it; and until you have created it, he cannot give you the fixed and earnest attention you want, without an effort which is positively painful to him. Fixed attention is a hard thing for anybody to give; fixed attention to religious subjects is especially a hard thing for children to give."

Moral instruction should, however, only 71
begin, and practice in moral observation only be given, after the mind has been exercised by a series of observations through the senses. In this branch of education the Socratic method of questioning will be found particularly useful, and, in illustration of it, the following questions may be of service. After such a series of questions and others

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similar to them, the teacher may point out that that which we ought to do, in other words, our duty, is termed moral action; men who do their duty are moral, and the quality they possess is termed morality. Duty is divisible into three parts: (1) concerning ourselves, (2) concerning the family, (3) concerning people generally, or the State; the last comprising the spheres of law and justice. Sometimes duty to God is added under a fourth head; sometimes it is regarded as the sum of the other three.

72 EXAMPLES OF QUESTIONS.

1. If you were in a foreign country, where you knew no one, and were destitute, and suffering from cold and hunger, or if you were taken ill, whom would you ask for help? Why?

2. Now, if these strangers should say to you, "We do not know you, you are neither our kinsman nor our countryman, we will not help you"; would you be pleased with such an answer? What would you think of these men? Would you consider them kind and compassionate, or unfeeling and inhuman? Why?

3. Well, if some foreigner, placed in the same unhappy circumstances, should come to you, and entreat your aid, what would he hope to hear from you? Would he be right in supposing that you would not help him, because he was a stranger to you?

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4. Are not human beings possessed of common faculties and feelings? Consequently, ought we not to judge of the effect of our conduct on others by that which is produced upon us by theirs?

5. If you have a right to expect the assistance of others, what claims have others upon you?

6. If you had lost a piece of money, and knew the person who had found it, what would you ask him to do? Why?

7. If you found a piece of money, and knew to whom it belonged, what would be your duty?

8. What should be your conduct towards those who act kindly towards you; and towards those who do you wrong?

9. How should you act towards those who have offended you?

10. How should you act towards your parents? Why?

11. If some deed you saw done made you angry, would it be right to fly into a passion? Why not?

12. If you saw another in danger, and knew that if you helped him you would endanger yourself, what would it be right to do? For what reasons?

Ex. 125.

Mention a number (say fifty) of words denoting *good* 73
qualities of men (*e.g.*, grateful, faithful, courageous, &c.)

(The teacher may assist the pupil by means of questions, such as: How should one friend be towards another? What do we call a person who is not idle?)

Ex. 126.

To all the words denoting qualities, used in the last exercise, add suitable nouns; (*e.g.*, The faithful servant; the courageous soldier).

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Ex. 127.

Change the words denoting qualities, used in the preceding exercises, into nouns (*e.g.*, faithfulness—or fidelity; courage).

Ex. 128.

To each of the nouns used in Ex. 127 add defining words; (*e.g.*, the fidelity of the friend; the obedience of the good pupil).

Ex. 129.

Mention words denoting *bad qualities* of men (*e.g.*, lying; deceitful; stupid).

Ex. 130.

With the words denoting bad qualities, used in the last exercise, connect suitable nouns.

Ex. 131.

Change into nouns the adjectives denoting bad qualities used in Ex. 129.

Ex. 132.

Define all the nouns used in the last exercise by means of other nouns. (The cruelty of the unjust king to his subjects.)

74 Sentences may now be set on the qualities enumerated in the above exercises. As a preparation for such sentences, the teacher may speak, and ask questions, at some length, on virtues and faults common among children. He should also bring before them biblical and other precepts and prohibitions, and read or

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narrate moral tales illustrative of his lessons. Fragments from the lives of great men, and of bad men, also extracts from reports of trials before courts of law, will form useful illustrations of good and bad qualities and their consequences in life.

Ex. 133, 134, 135.

Write sentences on the following words denoting bad qualities, connecting them with appropriate nouns; (*e.g.*, the *violent* man loses his self-command and presence of mind; he acts contrary to justice and law; he ill-treats his fellow creatures in word and deed).

Cunning. Superstitious. Mischievous. Drunken. Thievish. Ignorant. Obstinate. Impertinent. Idle. Cowardly. Avaricious. Quarrelsome. Overbearing. Haughty. Thoughtless. Dainty. Envious. Proud. Reckless. Foolish. Extravagant.

Ex. 136, 137, 138.

Good qualities:

Temperate. Compassionate. Candid. Punctual. Cleanly. Charitable. Loving. Forbearing. Polite. Good-mannered. Upright. Honest. Truthful. Amiable. Orderly. Unselfish. Generous. Impartial. Wise. Discreet. Contented.

In writing the above sentences, questions such as the following may be kept in view:

Industrious.—How does the industrious man act in everything he does? Can a man always work without interruption? Why not? What often hinders industrious

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people from working? What does the industrious pupil do? How does he behave during lessons and at preparation? What does the industrious man gain by his industry? What do you call the man who is the opposite of industrious? What are the disadvantages of being idle?

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75 *Sentences on Various States and Conditions of Men.*

With the good and bad qualities that have concerned us in the preceding exercises are connected certain states or conditions which are often direct consequences of such qualities. In going through the exercises which now follow, it should be the aim of the teacher to bring clearly before the pupil the connection between morality and happiness and between immorality and the opposite, a fact which in early years is vaguely felt rather than known and understood. Here again a beginning should be made with questions, as for example: In what conditions are men upon earth? (Good and bad). Into what two classes can men be divided according to their lot? (Happy and unhappy). In what does happiness consist? Who are happy? How does the happy man live? In what does un-

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happiness consist? Who are unhappy? How does the unhappy man live? &c.

Ex. 139.

Enumerate a number of words denoting a happy state (healthy, powerful, honoured, rich, &c.).

Ex. 140.

Enumerate words denoting an unhappy state (ill, poor, despised, sad, deserted, &c.).

Ex. 141.

With the adjectives used in the last two exercises connect suitable nouns.

Ex. 142.

Change the adjectives denoting a happy or an unhappy state, which you have used above, into nouns.

Having, by means of the last few exercises, 76
become more or less accustomed to the manipulation of these words, the pupil is now to write descriptive sentences on various states or conditions of man.

Examples of Questions.

How do men get into this state? How do they behave in it? What are its properties? What good and bad uses may be made of a happy or an unhappy state? How is the state changed? &c.

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Examples of Sentences on a State or Condition.

Poor. A man is *poor* who possesses little or no goods or money. The poor man should endeavour to be skilful, industrious, and economical, so that he may change his unhappy state for a happy one. Many people become poor through idleness, because without working they cannot earn money; or through dissipation, because they spend too much on eating, drinking, clothes, and the like. Others become poor through want of skill and knowledge, having learnt nothing; others through dishonesty, because by cheating others they lose their friends, patrons, and customers. Sometimes people become poor through misfortunes, such as fire, robbery, inundation, shipwreck, bad harvests, &c.

Ex. 143, 144, 145.

Form sentences on the following words denoting a happy or an unhappy state:

Healthy. Rich. Respected. Powerful. Cheerful. Comfortable. Contented. Ill. Despised. Sad. Disheartened. Neglected. Friendless. Ashamed.

Ex. 146.

Happiness.

The happiness of man may be steady or unsteady; short, lasting, accidental, &c. Describe the conditions, qualities, events, habits, actions, which render a man happy.

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Ex. 147.

HEALTH.

Describe the food and drink, the states or dispositions, the qualities and habits, which are useful or dangerous for health.

Ex. 148.

RICHES.

Describe the right means to obtain riches; the qualities necessary for obtaining them; the dangers of their possession; and the right use to be made of them.

Ex. 149.

RESPECT AND POWER.

Describe the means for obtaining respect and power; mention various conditions which command respect and give a certain power. Describe various kinds of respect; mention the persons to whom they are due, and state the reasons why.

Ex. 150.

UNHAPPINESS.

Mention the various kinds of unhappiness, describe its causes; mention the kinds of persons suffering by it, the means of avoiding it, and of escaping from it.

Ex. 151.

POVERTY.

Describe the various causes of poverty, referring to birth, illness, accidents, bad qualities, &c. Say how man ought to behave in poverty to bear it worthily. Describe the means of avoiding or escaping it.

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Ex. 152.

Sickness.

Mention various kinds of sickness from which men suffer. Describe their causes, symptoms, and consequences. Indicate how diseases may be avoided.

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Ex. 153.

Passions.

The passions of man are: anger, fear, grief, hatred, envy, jealousy, malicious pleasure, violent desires, &c. Enumerate the various passions of man, describe how each affects him, how he looks and acts when under the influence of passion, the impression his passions make on others, their consequences, and their influence on health, prosperity and happiness.

The above exercises form a necessarily brief and inadequate introduction to a very wide subject. Still, they represent, if properly treated, a considerably greater amount of work than the same number of exercises in the earlier portions of the book, and they may be made to cover as much ground as the teacher pleases.

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CHAPTER VII. 78

VARIOUS MODES OF EXPRESSION.

I. EQUIVALENT EXPRESSIONS.

THE same judgment, or judgments, conveying the same general meaning, can be expressed in various ways; *e.g.*:

(*a*) Jealousy is the poison of love.
(*b*) Jealousy is an enemy to love.
(*c*) Jealousy destroys love.
(*d*) Jealousy is a passion dangerous to love.
(*e*) The darkness of jealousy obscures the brightness of love.
(*f*) Jealous thoughts lay the foundation of hatred.
(*g*) If we allow our minds to be ruled by a passion that causes mistrust and envy, our love and happiness are at an end, &c.

The above sentences are all equivalent modes of expressing the same general idea. According to this example express each of the following sentences in as many ways as possible.

Ex. 154-156.

1. The king who is dreaded is not loved.

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2. When the righteous man is clothed in his virtue, he can defy calumny.

3. He who has escaped death and has been restored to health, clings to life with renewed love.

4. If reading is to be really useful to us, we must be careful why, what, and how we read.

5. True contentment is only to be found in the midst of those we love.

6. He who never loses his time has plenty of it.

7. To a certain extent, every man has it in his power to shape his own destiny.

8. Hope on, hope ever.

9. Let us join hands and work, for this day we are alive together.

10. Prevention is better than cure.

11. The paths of glory lead but to the grave.

12. Extremes meet.

79 ## II. Synonyms.

When several words may each be equally applied to denote the same thing, then those words are called *synonyms* (*σύν, ὄνομα,* joint names, or names in company); and the thing is said to be polyonymous (*πολύς, ὄνομα,* having many names). Adopting the above explanation, the words *man, statesman, prime minister, Englishman, Gladstone,* would, in the widest sense, be synonyms, because they may all be applied to the same person. According to usage, however, it is more correct to apply the term in

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a somewhat narrower sense, *viz.*, to words which have the *same meaning*, with comparatively unimportant shades of difference; *e.g.*, *swift*, *quick*, *fast*, *rapid*; *huge*, *immense*, *enormous*, *gigantic*, *colossal*, *monstrous*; *brook*, *rivulet*, *stream*; *sea*, *ocean*; *palace*, *castle*, &c.[1]

Ex. 157-159.

Group together the synonyms in the following list of words:

1. Suspicion. Gift. Physic. Mistrust. Present. Medicine. Revolution. Punishment. Insurrection. Chastisement. Rebellion. Correction. Limb. Feeling. Guilt. Work. Will. Shaft. Reward. Snare. Pride. Honour. Grief. Freedom. Member. Sentiment. Crime. Labour. Testament. Dart. Recompense. Net. Haughtiness. Dignity. Sorrow. Liberty. Sensibility. Offence. Toil. Bequest. Retribution. Trap. Petulance. Reputation. Privilege. Struggle. Esteem. Affliction. Independence. Fault. Effort. Entanglement. Pertness.

2. Glorious. Savage. Fair. Mild. Intoxicated. Humble. Distinguished. Barren. Grand. Fine. Sterile. Gentle. Lowly.

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[1] Synonyms must be carefully distinguished from *homonyms*, *i.e.*, words having the same sound with a different meaning.—The distinction of meaning in synonyms can usually be traced by means of etymology. It will be found that they denote things related either as genus to species, or *vice versâ*, or as species of the same genus. They often originate owing to degeneration of meaning, *i.e.*, when a word comes, in course of time, to be applied in a less restricted sense than is warranted by its derivation; sometimes, on the other hand, we find words which were originally applied to exactly the same ideas, conventionally differentiated through variation of usage.—To distinguish shades of difference in the meaning of synonyms would form an excellent mental exercise for advanced pupils.

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Wild. Inebriated. Great. Pretty. Unfruitful. Kind. Drunk. Modest. Magnificent. Beautiful. Submission. Eminent. Tender.

3. To surprise. To achieve. To muster. To rise. To unite. To astonish. To finish. To interdict. To review. To get up. To terminate. To gain. To prohibit. To win. To assemble. To ascend. To agree. To forbid. To collect. To end.

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Ex. 160-162.

Mention as many synonyms as possible for each of the following words:

1. Sign. Flesh. Danger. Shore. Salary. Animal. Mendicant. Custom. Wish. Spot. Love. Way. Author. Instant. Scholar. Exile. Refuge. Project. Obscurity. Ancestor. Ambassador. Food. Extremity. Play. Medicine. Tome. Gate. Box.

2. Content. Unique. Near. Quiet. Accomplished. Easy. Ancient. General. Proud. Serious. Big. Distant. Idle. Abundant. Becoming. Full. Good. Secret. Proper. Mighty. Closed. Perfidious. Honest.

3. To appear. To suffer. To hesitate. To awaken. To maintain. To command. To pray. To share. To suffocate. To receive. To concern. To reign. To sacrifice. To think. To conduct. To name. To elect. To beat. To apprehend. To see.

Ex. 163.

Name ten words, not used in the above exercises, with synonyms.

Ex. 164.

In the following sentences, substitute synonyms for the italicized words:

1. An *honest* man is *esteemed* by those who are honest.

2. *Remember* the *troubles* you have *suffered*, so as to *allow* them to *help* you, in *time to come*, to prevent others.

3. *Deprived* of their *property* and their *liberty*, these *unfortunat tribes* were *forced* to dig up the *soil* in order to *seek* gold for their *rapacious tyrants*.

4. So long as you are in *prosperity*, your friends will be *many*, as soon as you are in *adversity*, you will be *alone*.

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5. Silver *yields* to gold, gold to virtue.

6. Do not, for *one repulse, forego* the *purpose* that you have *resolved* to *effect.*

III. Periphrasis or Circumlocution. 81

Periphrasis (*περί* round, *φράζειν* tell) or *circumlocution* consists in the employment of several words to convey the sense of one, or of a longer sentence to convey the same judgment as a shorter one.[1] Thus *thirst for gold* is a circumlocution for *avarice; the guiding star of night* for *the moon; the narration of events in the life of an individual* for *biography*[2]; *the torrents falling from the skies* for *the rain*, &c.

According to these examples,

Ex. 165-167.

Give periphrases for the following words and expressions:

1. Life. 2. Man. 3. Language. 4. Illness. 5. Writing. 6. Museum. 7. School. 8. Wealth. 9. Modesty. 10. Industry. 11. Kindness. 12. Temperance. 13. Poverty. 14. Liberty.

[1] Used as a term of rhetoric, *periphrasis* is strictly a figure in which, instead of the object itself being named, its properties, effects, circumstances or surroundings are mentioned. It is thus distinguished from *paraphrase* in being used with an æsthetic purpose, whereas paraphrase is used only for perspicuity or amplification. In ordinary usage, however, the terms often overlap, so that we continually have a periphrasis which is a paraphrase, as well as a paraphrase which is a periphrasis. It is not usual to apply to the use of several words to express the sense of one any other term than periphrasis or circumlocution.

[2] Strictly speaking this is paraphrasis, not periphrasis.

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15. Parliament. 16. Physician. 17. Soldier. 18. Teacher. 19. Clergyman. 20. The sun shines. 21. The snow-mountains are high. 22. The ocean is immense. 23. The discontented man is not happy. 24. Heat evaporates water. 25. The wise man is contented with his lot. 25. The pyramids of Egypt are the largest monuments in the world. 26. Nothing venture, nothing have. 27. It is not the cowl that makes the monk. 28. Like master, like man.

Ex. 168.

Substitute simple expressions for the following circumlocutions:

1. The rose of dawn. 2. He who makes dull canvas glow with living grace. 3. The boundless deep. 4. Three silent pinnacles of aged snow. 5. The wandering fields of barren foam. 6. Death's twin-brother. 7. The wallowing monster spouting his foam-fountains in the sea. 8. The lords of creation. 9. The sterner sex.

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IV. EUPHEMISM.

Euphemism (εὖ well, φημί I speak) is the substitution for a harsh, offensive, or improper expression of a milder, indirect, or softened form of words. This figure is very common in ancient literature, and appears to have been widely used in ordinary parlance. Thus, the Black Sea was called by the Greeks, "the hospitable" (εὔξεινος), though it was, as a matter of fact, particularly dangerous, and therefore inhospitable. The Furies, similarly, were called Eumenides, or benign goddesses.[1]

[1] The desire to avoid, so far as possible, bringing into prominence anything repulsive, in word or deed, is a characteristic trait of the

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Examples of Euphemism: *He indulges somewhat too freely in strong drink* for *He is a drunkard; He is inclined to misrepresent facts*, or *He allows himself a considerable latitude of expression* for *He is a liar; He has lost his senses* for *He is mad; The evil one* for *The Devil; His reputation does not stand quite so high as it might* for *He is a bad character; He does not exhibit that regard for cleanliness which might be hoped for* for *He is a dirty fellow*, &c.[1]

Ex. 169.

In the following sentences substitute euphemisms for the italicized words:

1. I *despise* him. 2. The *fellow* is a *rascal.* 3. He *steals* and *cheats.* 4. I *hate* that *coward.* 5. *Scold* the *wicked creature.* 6. You are the *most impertinent* man I ever met. 7. *Turn the ruffian out.* 8. He is a *beggar.* 9. That man is a *hunchback.* 10. Those *villains* deserve to be *hanged.* 11. He behaves like an *idiot.* 12. He was of *mean* birth and one of the *mob.*

Greek character, and contrasts with the appetite for sensational details commonly exhibited in modern times. Thus, murders were never enacted on the Greek stage in view of the audience, and frequently we find these matters treated with studied vagueness.

[1] A figure, to some extent the reverse of euphemism, is that known in Grammar as *Meiosis* (a lessening). By means of it we say something is not less so and so when it is more so, or that it is not the opposite of a thing when it distinctly and emphatically is that thing; *e.g.*, He is *no fool;* Your news has surprised me *not a little.* Expressions such as "not less than 100,000 men"= more than 100,000 men, are commoner in classical than in modern usage. In a certain sense, and especially in some instances, it is true, this use may be taken as a special case of *euphemism*, and as an illustration of a desire to avoid anything that might look like undue exaltation.

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Ex. 170.

For the following euphemisms substitute direct expressions:

1. He is a little hard of hearing. 2. He is rather past his prime. 3. His notions of political honour are somewhat expansive. 4. This pupil has ceased to be a member of the school. 5. I find some difficulty in reconciling your statements with facts. 6. I have tasted better wine than this. 7. Queen Mary was not precisely one of the most popular of English Sovereigns, and her reign was not in all respects salutary for the nation.

83 V. REDUNDANT EXPRESSIONS, OR PLEONASMS.

Pleonasm (πλέον more) is a term used to denote the unnecessary repetition of the same idea, whether expressed by the same or by equivalent words, or by words whose signification is conveyed or implied by others employed in the same sentence; *e.g.*, there is a pleonasm in the expression *a round circle*, the word *round* being unnecessary, because the idea of roundness is conveyed by the word *circle*. In the sentence, *The generous man, who loves to practise generosity*, the pleonasm is in the use of the word *generous*, the same idea being expressed by the relative clause.[1]

[1] Pleonasm and Tautology are related. The difference consists in the fact that whilst, strictly speaking, a Pleonasm says more than is necessary to make the sense clear, Tautology repeats, in the same

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Ex. 171.

Alter the following sentences by omitting the words which form the pleonasms :

1. I know thee, stranger, who thou art.
2. The world it is empty, the heart will die.
3. The soul that sinneth, it shall die.
4. Which is the more unfortunate, the blind man deprived of sight, or the deaf man who cannot hear?
5. Consider in thy mind the way of the godly man, for his latter end is peace.
6. My friend is so implicated in the affair, that, though unwilling to advance forward, he is unable to recede back.
7. It is a pity you did not read the book in all its entirety.
8. This four-sided square has a greater area than that three-cornered triangle.

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or in other words, exactly what has been said before. Example of Tautology:—"The *unexpected* and *unlooked-for* news which you sent me, caused me much *grief* and *sorrow*." "I was greatly *pleased* and *gratified* by your *splendid* and *magnificent* gift."

Pleonasm is often used by the poets for the sake of emphasis and effect. Tautology is a serious fault of style.

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CHAPTER VIII.

PRIMITIVE, DERIVED, AND COMPOUND WORDS.

I. Primitive and Derived Words.

There are words from which other words are formed, and which are not themselves formed from simpler words. Such words are called *primitive words;* and the words formed from them are called *derivative words*, or simply *derivatives: e.g.*, the words *active*, *actual*, *action*, *reaction*, *activity*, *actuality*, *actor*, *actress*, *inaction*, *&c.*, are all derivatives from the primitive *act*; *careful*, *careless*, *carefulness*, *carelessness*, *care-worn*, *&c.*, are derivatives from the primitive *care*.

Ex. 172.

Name the primitives of the following derivatives:

Election. Electioneering. Elector. Electorate. Electorship. Elective. Eligible. Eligibility. Outspoken. Slavish. Unwomanly. Enjoyable. Joylessly. Joyfulness. Overjoyed. Dismemberment. Grammatically. Grievous. Disproportionate. Misbehaviour. Unmannerly. Heartlessness. Outlandish. Dishearten. Intermixture. Decomposition. Backward. Unmindful. Remind. Lengthening

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Fancifulness. Ownership. Unquestionably. Talkativeness. Downwards. Highlander. Compliance. Upraise. Moderatorship. Bewitched. Punctuality. Illumination. Gentlemanly. Disclosure. Imprisonment. Disaffection. Unartificially. Irresistible. Martyrdom. Surrounding. Impurity. Waiter. Masonry. Interchange. Demoralization. Unfettered. Insurmountable. Empower. Irregularly. Unmelodious.

Ex. 172, 173.

Write a list of words derived from each of the following words:—

Consider. Defence. Season. Rich. Fruit. Blood. Doubt. Friend. Use. Value, Spirit. Change. Conscience. Excite. Might. Mystery. Medicine. Period. Agreeable. Reason. Succeed. Form. Favour. Fortune. Apply. Miracle. Elastic. Life. Nature. Blame. Law. Wit. Idol. Harm. Constitute. Fury. Presume. Heart. Fancy. Grace. Offered. Free. Right. Malice. Kind. Passion. Just. Art. Vapour. Peace. Laughter. Love. False.

Ex. 174.

Write out from memory a list of twenty derived words.

Ex. 175.

Write out from memory a list of twenty primitive words.

II. Compound Words. 85

When two or more separate words are joined together to make a single term, expressing a new idea, the resulting word is called a *compound*. By the fact of their consisting of two or more different words, compounds are distinguished from derivatives. Such compounds may be either nouns, adjectives,

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verbs, or adverbs. It is the noun compounds that here chiefly concern us. They have already been incidently alluded to on p. 43.

(*A.*)—Noun compounds are formed in four ways :—1. *Noun and noun.* 2. *Noun and adjective.* 3. *Noun and verb.* 4. *Noun and pronoun.*

Examples.—1. *Churchyard, house-top, coast-line.* 2. *Blackbird, greenfinch, midday.* 3. *Spendthrift, scapegoat, save-all, makeshift.* 4. *Self-help, self-will, self-contempt.*

(*B.*)—Adjective compounds are formed in four ways ,—1. *Noun and adjective.* 2. *Adjective and noun.* 3. *Adjective and adjective.* 4. Various combinations of *participles with nouns and adjectives* (or adverbs).

Examples.—1. *Praiseworthy, hateful, heartless.* 2. *Red-handed, bald-headed.* 3. *Grey-green, blue-black.* 4. *Heart-rending, heart-broken, ill-smelling, sweet-scented, crest-fallen, well-beaten.*

(*C.*)—Verb-compounds are formed in four principal ways , —1. *Noun and verb.* 2. *Adjective and verb.* 3. *Verb and adverb* or *vice versâ.* 4. *Particle and verb.*

Examples.—1. *Henpeck, waylay, woolgather.* 2. *Whitewash.* 3. *Doff* (= do off, "put off"), *overturn, upset.* 4. *Foretell, foresee.*

(*D.*)—*Adverb-compounds* are commonly formed by combining the adverbs *there, here, and where, with* (1) *prepositions* (2) *adverbs,* (3) *indefinite pronouns.*

Examples—1. *Thereof, herefrom, whereto.* 2. *Wherever,* 3. *Somewhere, nowhere.*[1]

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[1] These particulars on compounds are mainly derived from Morris' *Elementary Lessons in Historical English Grammar,* second edition, pp. 193, 194; 215-217.

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Ex. 176.

Form compound nouns, as far as possible on the models given above.

Ex. 177.

Form adjective-compounds in the same way.

Ex. 178.

Verb-compounds.

Ex. 179.

Adverb-compounds.

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CHAPTER IX.

COMPARISON.

COMPARISON is the best means of acquiring clear and distinct ideas; it consists in attentively observing two objects together, for the purpose of ascertaining what properties they have in common, and in what respects they differ from each other.

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Comparison of Resemblances.

EXPLANATORY EXAMPLES.

(1.) *Chalk and Lead Pencil.*—On comparing chalk with pencil, we find that: 1. Both are school materials. 2. Both are used for writing and drawing. 3. Both, in their principal parts, are mineral substances. 4. Both have various degrees of hardness. 5. Both are brittle. 6. Both can be cut with a knife. 7. Both diminish by use.

(2.) *Wine and Beer.*—1. Both are nourishing and

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[1] In this and the succeeding chapters, the following arrangement will be adhered to, partly for brevity, and partly as best suiting the subject-matter: after short prefatory remarks, examples will be given, followed by (1) Explanations, (2) Exercises, and, occasionally. (3) Questions.

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strengthening drinks. 2. Both are the produce of the soil. 3. Both are kept in casks, bottles, and cellars. 4. Both, if well made, keep long. 5. Both become better by being kept. 6. Both must be clear to be good. 7. Both intoxicate, if drunk immoderately. 8. Both are injurious to health, if taken in excess. 9. Both turn sour, if kept in bad cellars, or in casks improperly cleansed. 10. Both can be used to make vinegar.

(3.) *Water and Air.*—1. Both are fluids. 2. Both are spread over the whole globe. 3. Both are indispensable to life. 4. In both millions of creatures exist. 5. Both have a certain weight, and therefore support bodies lighter than themselves. 6. Both strengthen the body. 7. Both set mills in motion.

EXPLANATIONS. 88

(1.) What we can observe in an object is called *phenomenon, appearance,* or *sign.*

(2.) Objects which possess in common certain *like* signs or phenomena are *similar.*

(3.) The seeking of similar appearances in two or more objects, is called *comparing.*[1]

(4.) Objects may be similar to one another in different respects, *viz.* :—

a. With respect to their *origin* and *source.*

Of every thing it may be asked: Whence does it come? or, Who made it? How did it originate? or, How was it produced?

Objects produced by nature are called *products of nature,* or *natural products;* those formed by man, *products of art,* or *artificial products.*

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[1] See, however, the opening words of Chapter X.

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b. With respect to their *use.*

Of every object we can ask,—Of what use is it?

c. With respect to their *form* or *shape.*

(*α*) Many objects have a peculiar, persistent form; as, for example, a ball, a circle, an acorn, a sword.

(*β*) Other objects have no determinate form; as stones, iron, lead, wood, clay; but every possible form can be given to them.

89 *d.* With respect to their *parts* or *members.*

(*α*) In many objects particular parts can be distinguished; in the *knife*, for example, there is the blade and the handle; in the *blade*, also, we distinguish the edge, back, and point: in a *tree*, the root, the stem or trunk, the branches, leaves, bark, blossom, &c.

(*β*) Other objects consist of a homogeneous mass, in which we cannot distinguish particular parts; as stone, flour, water, iron, oil, paper, clay.

e. With respect to the *substance*, *matter*, or *material* of which objects consist naturally, or of which they are made by man.

All productions of art are derived from the products of nature.

f. With respect to their *size.*

Every thing has (1) *length*, (2) *breadth*, and (3) *thickness*, *height* or *depth*. These three dimensions together constitute the *size* of an object. In some objects we consider only the *length:* in others (1) length and breadth, or (2) height and breadth (*surface*); in others, all three dimensions (*solidity*, *volume* or *cubical content.*)

g. With respect to their *qualities.*

To every object some *particular* qualities are attached, which we can distinguish partly by the sight, partly by the touch, taste, or smell; for example, colour, softness, hardness, fineness, smoothness, flexibility, brittleness, toughness, weight, sourness, bitterness, &c.

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h. With respect to the *motion* of bodies, which is either 90
innate, or is communicated to them by some other body.

(α) The action or motion of some bodies is spontaneous; that is, they can move or act without the influence of any other body: as men, animals, plants.

(β) Other objects, on the contrary, move or act only when motion is imparted to them by some other body: chalk, for example, will not mark, nor will a knife cut, unless we move them.

i. With respect to the *changes* which objects either *undergo*, or which they can *produce* in other objects.[1]

For example, a lead pencil and penknife suffer a change by being sharpened. Knife and scissors produce a change upon other objects, as on the fingers if we wound them.

(5.) The qualites or appearances in which two objects are similar to each other are called *points of comparison.* Therefore the greater the number of points of comparison which exist in two objects, the more are the objects alike.

In stating the points of comparison between any two objects, their class or genus is always placed first[2]: then the material of the different parts, their use, colour, size origin, &c. Example: *knife* and *fork.* Knife and fork are table instruments. The blade of the knife and the prongs of the fork are of metal. The handles of both are of metal, ivory, or horn, and often have a similar shape, &c.

EXERCISES.

In accordance with the preceding examples 91

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[1] Motion (*h*) may also be brought under this heading as a particular case.

[2] See Chapter XI.

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and observations, draw comparisons between the following objects.

[In the following exercises, the Teacher is expected to select the exercises best adapted to the age and capability of the pupil. A previous explanation directing the pupil's attention to the different points of comparison, should, if possible, be given before each exercise.]

Ex. 180.

1. *Door and window of the school-room.*—State of what both are parts; in what their forms only are similar; what parts of them are alike; their common use, &c.

2. *Table and bench.*—State what both are; what form both may have in common; of what materials both may be made; who makes them, &c.

3. *Wood and stone.*—State what both are; what are their various common uses; their capability of being shaped into any form; their degrees of hardness; their durability; the tools used in working on both, &c.

Ex. 181.

4. *Goat and cow.*—State what the goat and cow are, their common bodily qualities, common temper, use, abode in winter and summer, &c.

5. *Hearing and sight.*—State what both are, the situations of the corresponding organs in the body, the objects perceived by them, their use for learning, their improvement by exercise, their strength in youth and old age.

6. *Baker and brewer.*—State for whom, and with what, both work; from what natural kingdom both obtain the materials for their trades; what both require in common when they work, &c.

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Ex. 182.

1. Knife and fork. 2. Jug and glass. 3. Field and garden. 4. Goose and duck. 5. Bee and wasp. 6. Hand and foot. 7. Rose and tulip. 8. Potato and pea. 9. Meat and egg. 10. Sun and moon. 11. Fog and cloud. 12. River and highway. 13. Boat and cart. 14. Smith and locksmith.

Figurative Ideas or Expressions. 92

Considering the frequency of figurative expressions and the great addition to a comprehension of the beauties of language which a knowledge of them secures, they will be treated at some length. The exercises will serve at the same time to enlarge the range of ideas, and to enable the pupil to express them in a more striking and forcible manner.

Figurative expressions are usually founded on *analogy*. Analogy is the similarity of relations. When one object stands in the same relation to a second, as a third object does to a fourth, the first and third are said to be analogous. Thus, since a king is supposed to watch over and protect his subjects, as a shepherd does his sheep, the office of a king is said to be analogous to that of a shepherd; and hence, kings are often called by poets, shepherds of their people.

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93 EXPLANATORY EXAMPLES.

(I.)—1. Whoso boasteth himself of a false gift is like clouds and wind without rain. (Prov. xxv. 14.) 2. As the whirlwind passeth, so is the wicked no more: but the righteous is an everlasting foundation. (Prov. x. 25.) 3. The path of the just is as the shining light, that shineth more and more unto the perfect day. (Prov. iv. 18.) 4. The way of the wicked is as darkness: they know not at what they stumble. (Prov. iv. 19.)

(II.)—A new friend is as new wine: when it is old thou shalt drink it with pleasure. (Sirach ix. 10.)

(III.)—1. Saul and Jonathan were lions in the battle. 2. Many a man dies in the bloom of his life, and must abandon the fruits of his industry to others. 3. The righteous man can calmly look forward to the evening of his life.

(IV.)—1. The eagle is the king of birds. 2. The lion is the king of beasts. 3. The rose is the queen of flowers. 4. The fields sigh for rain. 5. The trees sing for joy.

94 EXPLANATIONS.

(1.) Objects perceived through the medium of the senses, we call *sensible* objects, and the ideas we get of such objects, *sensible* ideas; as, *river*, *light*, *flower*. Those ideas which are not received through the senses are termed *abstract* or *spiritual* ideas; as, *hope*, *love*.

Objects not perceptible by the senses are very frequently compared to objects which are perceived by them, in order to render the abstract idea more evident. [See (I.) of the preceding Explanatory Examples.]

(2.) Abstract or spiritual ideas are often designated by the names of objects perceived by the senses, which have

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some analogy to them. Such an expression is called an *improper* or *figurative expression*, as opposed to *proper*, when the names are applied to the sensible object to which they belong. [See Explanatory Examples (II.), (III.), (IV.).]

(3.) By the use of figurative expressions, abstract ideas 95
are, in a measure, rendered *sensible*, and therefore more easily comprehensible [see Explan. Ex. (II.), (III.)]; and, in the same way, ideas acquired by the senses become more vivid [see Explan. Ex. (IV.)].

(4.) The abstract or spiritual finds its *analogue* in the sensible; so that there are sensible ideas, corresponding and more or less closely analogous to the greater number of abstract ideas. These analogues are called *figures* or *tropes*. Figurative expressions do not always designate objects according to a real analogy, but often only according to an *imaginary* one.

(5.) In order to comprehend the meaning of a figurative expression, it is necessary to know first its *proper* (literal) signification, and then to seek the analogy between that and the *figurative* expression.

(6.) If the sensible object has various analogies with the spiritual idea, and if all these analogies are preserved and followed throughout a composition, an *allegory* is produced; examples of which are frequent in Literature; *e.g.*, Spencer's *Faerie Queene* and More's *Utopia*.

ANALYSIS OF THE EXPLANATORY EXAMPLES. 96

As this chapter is both difficult and important, we shall analyse the explanatory examples of this Lesson, as a guide to the teacher in explaining

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the subsequent figures. The following questions may be answered, either *vivâ voce*, or in writing, or both.

(I.)—1. *Whoso boasteth himself of a false gift is like clouds and wind with no rain.* (Prov. xxv. 14.)

Who is the subject of this proverb? What kind of boasting is referred to? What is said of such a boaster? What sort of wind and clouds is he said to be like? What objects are compared to each other? If the wind is high and the sky overcast, what do you expect? What would be the effect of rain in a time of drought? How would people feel if these winds and clouds did not bring rain? Would not a boaster, who by his words had excited the expectations of others, but did not keep his promises, be like winds and clouds without rain? Why? In what respect are the two subjects compared in the proverb, like each other? *Ans.* In giving rise to expectations which they do not fulfil.

97 2. *As the whirlwind passeth, so is the wicked no more, but the righteous is an everlasting foundation.* (Prov. x. 25.)

Of whom is something affirmed in this proverb? What is affirmed of him? What objects are compared to each other? What is said of the whirlwind? Can the same be said of the wicked? As by his wickedness he makes enemies, who endeavour to overthrow him, is his greatness likely to be of long duration? What do people think when he is dead? What sort of feelings does a whirlwind cause? How can these feelings be compared to those excited by the wicked? In what respect, therefore, are the whirlwind and a wicked man alike? Why do they cause terror? What thoughts does this comparison express?

In this proverb, as in the preceding one, a person is compared to some other object. State which is the sensible and which is the spiritual idea. Why is the idea of a boaster or of a wicked man, spiritual, and that of wind, clouds, or whirlwind, sensible?

98 3. *The path of the just is as the shining light, that shineth more and more unto the perfect day.* (Prov. iv. 18.)

What does the "path of the just" mean? To what is the path of

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the just compared? What is said of the shining light? Which is here the spiritual, and which the sensible idea? How can the path of the just be compared to a shining light, that shineth more and more? In what do the just increase more and more? From what sort of darkness is he more and more delivered? Now, in what are shining light and the path of the just alike?

4. *The way of the wicked is as darkness: they know not at what they stumble.* (Prov. iv. 19.) 99

What does the "way of the wicked" signify? To what is the way of the wicked compared? When do we not know at what we stumble? Why? As the wicked man lives in darkness and sees not the dangers which threaten him, yet fears the future, what sort of life does he lead? What resemblance, therefore, has the way of the wicked to the night?

After having analysed the explanatory examples in Number (I) in this manner, the pupil must again study attentively the explanations numbered (1) and (2), and then answer the following questions in writing: 100

1. What is a *sensible* idea? Write ten examples of sensible ideas. 2. What is an *abstract* or *spiritual* idea? Write ten examples.

In Number (2) of the Explanations, it is said, that abstract ideas, designated by the names of sensible objects, are called *figures*, or *figurative expressions*. In order to render this observation clear, we shall analyse the sentences in Numbers (II.), (III.) and (IV.) of the Explanatory Examples. 101

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(II.) *A new friend is as new wine; when it is old, thou shalt drink it with pleasure.* (Sirach ix. 10.)

Of whom is something affirmed? What is said of a new friend? Is the new friend really as new wine, in that it can be drunk? What sort of expression therefore do we call this? As the figurative expression must always have some resemblance to the idea which is designated by it, state what resemblance there is between *new wine* and a *new friend.* As old wine is better and dearer than new, and as it improves by age, what further resemblance do you see? What is the difference between a new and an old friend? But all new wine does not improve by age, the bad becomes sour and useless by being kept. We cannot always tell whether new wine is good or bad, and it is only after waiting till it becomes old that we can form a correct judgment. Now, in what is new wine like a new friend? How can we know whether he is good, faithful, and sincere?

102 (III.)—1. *Saul and Jonathan were lions in the battle.*

Were Saul and Jonathan lions, literally speaking? Why may we call them lions? What rank does the lion hold among the strongest and boldest animals? What were Saul and Jonathan in battle? In what respect, therefore, may they be compared to lions? What sort of expression is the above? What does it mean in plain, literal language?

103 2. *Many a man dies in the bloom of life, and must abandon the fruits of his industry to others.*

Of whom is something affirmed in this sentence? What is affirmed? What is the meaning of "the bloom of his life?" Is it a blossom like that of a tree? What sort of expression is it, therefore? What does it mean? Does a tree bloom when it is only a few years old? What follows the blossom on a tree? If a tree dies when it is in blossom, does it produce fruit? Now what is the bloom of life? What does it promise? What are the fruits of industry? Render the whole sentence without any figurative expression.

104 3. *The righteous man can calmly look forward to the evening of his life.*

What part of the day is the evening? Now, if we compare human

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life to a day, what is the latter part of life? What resemblance, therefore, has old age to the evening?

(IV.)—1. *The eagle is the king of birds.* 2. *The lion* 105
is the king of beasts. 3. *The rose is the queen of flowers.*

Is the eagle really a king having subjects and territory? What does this expression mean? What rank does a king occupy in his kingdom? What name can we give in a figurative sense to an object which is the highest or most powerful of its class? What rank does the eagle hold among birds, the lion among beasts, and the rose among flowers? To what, therefore, may they be compared?

4. *The fields sigh for rain.* 5. *The trees sing for joy.* 106

Can the fields sigh, literally speaking? When do we sigh for something? What does "sigh" mean in the above sentence? Express the sentence in other words.

When do we sing for joy? After the fall of refreshing rain, why may a tree be said to sing?

To what are inanimate objects compared in these two sentences?

QUESTIONS ON THE EXPLANATIONS.

(1.) To what are *spiritual* or *abstract* ideas often com- 107
pared, and in what manner? What is *a point of comparison*? [See § 90. Explan. (5.)] Give examples of such comparisons, and point out the objects which you compare, stating which is the *spiritual* and which is the *sensible* idea.

(2.) What are the objects and actions perceived by the senses called? Why? Give some examples.

(3.) By what are *spiritual* ideas often designated? What is the name of such expressions? Give some examples.

(4.) What is the *effect* of figurative expressions? What is meant by "to render sensible?" Give some examples.

(5.) In what does the spiritual find its *analogue*? What

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is an *analogue*? May there be many sensible ideas *analogous* to a spiritual idea? To what, for instance, may *human life* be compared? (To a day, stream, plant, the seasons, &c.) Do figurative expressions always designate objects according to a *real* analogy? What is an *imaginary* analogy? [See § 95.]

(6.) In a figurative expression, what must we first understand, in order to comprehend its meaning? What is meant by the *proper* meaning of a figurative expression? and what must we seek for when we know it? (*Ans.* The analogy between the figurative and the proper expressions, which was the object of the preceding analysis of figurative ideas.)

(7.) What is an *allegory*?

[The preceding analysis of the examples and explanations is to serve only as a guide to the master, who can introduce such changes as he finds desirable. The exercises should be repeated in order to render them quite clear, repetition being specially necessary in this part of the subject.]

108 EXERCISES.

The following exercises should be explained to the pupil according to the foregoing method, before he begins to write them.

As figurative expressions render spiritual ideas more distinct and comprehensible, the master should always begin by directing attention to the proper meaning of these expressions, and endeavour to make the sensible idea represented by them as clear as possible to the pupil.

Examples.—1. In the sentence, "*These reproaches pierce my heart,*" the figurative expression lies in the words *pierce* and *heart*; the meaning being, that the reproaches produce an effect on the mind as painful as that which would be

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caused by plunging a dagger into the heart. 2. *To have a ray of hope.*—Here the figurative expression consists in the word *ray*: something *spiritual* is meant, although the word literally denotes a *sensible* object. A "ray" is a small stream of light proceeding from any luminous body, which partially lights up the objects around us, and enables us to distinguish them from one another. We naturally associate darkness with the ideas of doubt, fear, distress, and hopelessness, because of the greater danger to which men, under certain circumstances, are exposed during the night. The benighted traveller, terrified by the howling of beasts of prey, or fearful of falling into some pit, dares not advance, because he cannot see whither he is going. But the return of morning dissipates his fears. Now suppose that, in the midst of his perplexity, he were to learn that shelter and safety were at hand, the effect upon him would be precisely the same as the return of light; he would have a *ray* of *hope.*

Guided by these explanations, express the following figurative expressions in words bearing their *proper* or *literal* meaning.

Ex. 185.

1. A sunny countenance. 2. To lie heavy on the heart. 109
3. To take a thing to heart. 4. To be the soul of society. 5. The foot of the mountain. 6. The wicked will not escape from the hand of justice.

Ex. 186.

1. The hand of death is upon him. 2. To deposit one's secrets in the bosom of a friend. 3. Showers of tears fell from her eyes. 4. Flowing language. 5. To perish in the gulf of time. 6. To be the fountain of all life.

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Ex. 187.

1. The spring of life. 2. Tossed on the troubled sea of passion. 3. To extol to the skies. 4. The flower of the army. 5. A profound understanding. 6. A shallow mind. 7. The union of hearts.

110 Name the *points of comparison* (analogies) in the following sentences. *Example*—"A false friend is like the shadow on a sundial, which appears only when the sun shines."—A false friend adheres to us only while we are in prosperity; he abandons us when we are in distress, just as the shadow quits the sundial when the sun ceases to shine. *Sun* and *prosperity* are the points of comparison.

Ex. 188.

1. Troubles are like thunder-clouds: at a distance they appear black, but when above us, grey. 2. An idle man may be compared to rust, which consumes more than constant use. 3. To calumniate the absent is just as bad as to attack the defenceless. 4. Misfortune, like medicine, though disagreeable to the taste, is beneficial in its effects. 5. A grateful heart may be compared to a fruitful field, which gives more than it receives.

111 Change the following figurative expressions into *proper* (literal) ones. *Example*—"*Smiling fields.*" *Smiling* is a silent expression of joy. We smile when we are pleased. The expression denotes fields distinguished by the variety of their natural beauties, fine trees, luxuriant grass, or corn promising an abundant harvest, all awakening a feeling of pleasure and joy in the observer.

Ex. 189.

1. To taste the cup of pleasure. 2. To drain the cup of affliction. 3. To learn in the school of adversity. 4. To

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possess a heart of stone. 5. To have an iron constitution. 6. To write in a milk-and-water style.

Ex. 190.

1. His remarks are very weighty. 2. A hot engagement with the enemy. 3. To be a warm friend. 4. The raging storm. 5. A friendly breeze. 5. The silver moon.

Ex. 191.

1. The blushing morn. 2. Pale envy. 3. Bitter grief. 4. A blooming youth. 5. The scales of Justice. 6. Better days are dawning behind the dark mountains of the present.

Ex. 192. 112

Express the ideas contained in the following sentences without employing *figurative* expressions:

1. Whoso diggeth a pit shall fall therein; and he that rolleth a stone, it will return upon him. (Prov. xxvi. 28.) 2. There is that speaketh like the piercings of a sword; but the tongue of the wise is health. (Prov. xii. 18.) 3. As dew refreshes the parched grass, so does a kind word revive the drooping soul. 4. The generations of men fall, like withered leaves; and like them, have their places supplied by young and vigorous successors.

Ex. 193. 113

In the following sentences omit the *figurative* expressions, and replace them by others conveying the same idea. *Example*—"Hannibal has been blamed for leading his army to Capua, where it became effeminate; but would not this army, enriched by the spoils of victory, *have found a Capua* everywhere?" That is to say: "would it not have become effeminate and corrupt in any other place?"

1. There are countries, such as Egypt, above which the heavens never open; whilst upon others the clouds constantly pour down their liquid stores.

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2. The envious find their punishment in their own hearts: for envy is a rust which gnaws iron.

3. Whatever thy vocation may be, let probity be thy constant companion.

4. Those who know not how to use fortune when she comes, should not complain when she leaves them.

5. Study is the key which opens the treasure-house of knowledge.

Ex. 194.

1. You may glean knowledge by reading, but you must separate the chaff from the wheat by thinking.

2. Fortune is unstable; when we build upon it, we build upon sand.

3. Be just towards all; he who sows injustice reaps hatred and vengeance.

4. Do not shut your mind to the counsel of old men: their lessons comfort and instruct; and their skilful hands can remove the bands of error from our eyes.

5. Idleness goes forward so slowly, that poverty soon overtakes it.

Ex. 195.

1. A drunkard, having filled himself with the juice of the grape, left his reason in the empty bottle.

2. The man who is standing in a slippery place, gladly catches at any object to save himself from falling.

3. Ye who begin your day in pleasure, take heed lest ye end it in sorrow.

4. Acts of kindness shown to us, we should record on brass; but the injuries we receive, on sand.

5. We all carry two wallets, one on our backs, the other on our breasts: in the former we put our own faults, in the latter those of our neighbours.

Ex. 196.

1. He who ventures on the sea of passion will assuredly suffer shipwreck.

2. A golden key opens every lock.

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3. Many persons act like the frog in the fable, who, wishing to make himself as big as an ox, puffed his body to such an unnatural size, that he burst.

4. Next, April, with her sister May,
Drives Winter from the bowers,
And weaves fresh garlands every day,
To crown the smiling hours.

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CHAPTER X.

COMPARISON (*Continued*).

DISTINCTION OR DIFFERENCE.

ALTHOUGH the word "to compare," taken in an extended sense, comprehends the seeking not only of analogies, but also of the points of difference between objects; yet it is more convenient, for the purpose of instruction, to place the exercises on differences by themselves, in order to render the two ideas "like" and "different" as clear as possible to the pupil.

Comparison of Differences.

EXPLANATORY EXAMPLES.

115 (I.) *Lead pencil and slate pencil.*—1. With the former we can write on paper, wood, parchment, the walls; but with the latter only on slate or prepared boards. 2. The lead pencil is manufactured from blacklead; the slate pencil from the softest clay slate. 3. The lead pencil produces black marks; the slate pencil usually white ones. 4. The strokes

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made by the lead pencil cannot easily be effaced without some such material as india-rubber; the marks made by the slate pencil, on the contrary, can easily be rubbed out without leaving any trace. 5. The lead pencil is more expensive than the slate pencil.

(II.) *Foot and Hand.*—1. The foot serves for standing and 116
walking; the hand for working, conveying food to the mouth, writing, and other functions. 2. The motions of the hand and fingers are more free and quick than those of the foot and toes. 3. By bending the fingers we can shut the hand, which we cannot do with the foot by bending the toes. 4. With the hand we can touch every part of the surface of our body, but we cannot do so with the foot. 5. The thumb can be brought in contact with all the fingers, which is not the case with the great toe as regards the other toes; consequently we cannot grasp an object with the foot as we are able to do with the hand. 6. The hand, with its fingers, is the chief medium of the sense of touch, a property which the foot does not possess in any eminent degree. 7. The foot is the extremity of the lower, the hand of the upper limbs. 8. The bones of the foot are shorter and thicker than those of the hand. 9. The fingers have nearly the same length as the palm of the hand, but the toes are considerably shorter than the sole of the foot. 10. The hand is far more indispensable than the foot; the loss of it is repaired by art with more difficulty and less completely than that of the foot.

(III.) *Water and Air.*—1. Water is a liquid, air is an 117
elastic fluid. 2. Water becomes solid by the effect of cold, air does not. 3. Water is unequally distributed over the earth, and is entirely wanting in many places; but air, as the first condition of life, is uniformly diffused over the surface of the earth. 4. Water cannot be compressed or expanded so easily or to such a degree as air. 6. Water is

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about 800 times heavier than air. 7. Those animals only can live in water which have white or cold red blood; the higher order of animals, which have warm red blood, cannot exist in it. 8. In water animals swim; in the air they fly, walk, or crawl.

118 EXPLANATIONS.

(1.) Two objects (or ideas) are *different* from each other, if we find properties in the one which the other does not possess.

(2.) The seeking of the differences between objects is termed *distinguishing* or *differentiating* them, or *drawing a distinction* between them.

(3.) In order to distinguish between two objects, we must observe the *points of difference* which they possess.

(4.) In drawing distinctions, the same method may be employed to ascertain *differences*, as has been explained in reference to resemblances. See the rules laid down in §§ 88, 89, (4), *a-i.*

119 EXERCISES.

In accordance with the preceding examples and Explanations, draw distinctions between the following objects.

Ex. 197.

1. The door and the window of the school-room. 2. Table and bench. 3. Fog and cloud. 4. Goose and duck.

Ex. 198.

1. Cow and goat. 2. Horse and ass. 3. Birds and quadrupeds. 4. Bee and wasp.

Ex. 199.

1. Apple-tree and pear-tree. 2. Rose and tulip. 3. Oak and beach. 4. Cherry and nightshade—(consider their

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effects when eaten, whether the fruit grows on a tree or on a herbaceous stem, colour of stem, colour of fruit, inside and outside, season of maturity). 5. Lead and tin.

Necessary or Essential, and Accidental or Non-Essential Properties (Properties and Accidents.) 120

An object cannot be accurately perceived, and distinguished with certainty from another, without ascertaining what is *essential* and what is *not essential* to it. Exercises respecting the necessary and accidental properties of bodies will aid in the formation of correct notions.

EXPLANATORY EXAMPLES. 121

(I.) 1. A *table* must have a top and legs. Legs and top are essential parts of a table. 2. *Ink* must be liquid. Fluidity is a necessary quality of ink. 3. An *inkstand* must be hollow. It must also have a bottom and sides, and be open at the top. These are essential marks of an inkstand.

(II.) A *table* may have one or more legs. The *number* of them is not an essential but an accidental property of a table. A table may be round, oval, angular, broad, or narrow; the *form* and *size* are not essential properties. A table may be brown, black, grey, yellow, etc.; the *colour* is an accidental mark. It may be of wood, stone, or iron; the *material* is a non-essential property. It may also be strong or weak, high or low, old or new; these qualities also are accidental.

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EXPLANATIONS.

122 (1.) The properties which an object must possess, in order to be what its name implies, are the *necessary* or *essential properties*. (Properties.) [See Explan. Ex. (I.)]

(2.) The properties which an object may have, but which it does not necessarily possess, are *accidental* or *non-essential properties*. (Accidents.) [See Explan. Ex. (II.)]

(3.) The essential properties of an object are *lasting*. By them we perceive objects according to their nature, and distinguish them from other objects.

123 EXERCISES.

Ex. 200.

State what is *essential* and what is *accidental* in the following objects:—

1. Penknife. 2. Window. 3. Roof. 4. Oven. 5. Room.

Ex. 201.

Name the *accidental* properties of

1. Paper. 2. Pen. 3. Book. 4. Dog. 5. Horse. 6. Hat.

Ex. 202.

By what properties do we know the following objects?

1. A school-room. 2. An inn. 3. A smithy. 4. A fir-tree. 5. An oak. 6. A willow.

Ex. 203.

What are the properties of

1. A bird of prey. 2. A swimming bird. 3. A fish. 4. A plant. 5. A metal.

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Ex. 204.

What are the properties of

1. A noble-minded man. 2. A polite man. 3. A liar. 4. An honest man.

Example.—The distinguishing qualities of a *truthful man*, are: 124
—1. He never speaks otherwise than he thinks. 2. He promises only what he intends to perform. 3. He conceals nothing from a person who has the right to demand of him the whole truth. 4. He always relates events and circumstances exactly as he has seen and heard them. 5. If he has committed a fault, he will not try to conceal it by any equivocal replies. 6. He speaks the truth, even when falsehood would obtain for him some worldly advantage.

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CHAPTER XI.

COMPLEX IDEAS.

PREPARED by the preceding exercises in Comparison and Distinction, the pupil will now be able to comprehend the following doctrine of *Complex Ideas*, the use and importance of which is due to the fact that it assists the memory in retaining what has been learnt, produces order and clearness in ideas, and gives precision to expression. This Chapter is an important introduction to Composition, as it prepares for exercises in Arrangement.

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126 *Genus, Species, Co-ordinate Species.*

EXPLANATORY EXAMPLES.

(I.) 1. *Singing bird.*

Lark, Blackbird, Starling, Finch, Linnet, Thrush, Canary, Robin.

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2. *Bird.*

Bird of prey, Singing bird, Wader, Swimming bird, Running bird.

3. *Animal.*

Mammal, Bird, Reptile, Fish.

(II.) *Tree.*

Fir, Pine, Oak, Beech, Birch, Lime, Poplar, Willow, Alder, Aspen.

EXPLANATIONS.

(1.) Ideas are either *simple* or *complex.* 127

A *simple* idea, in a strictly logical sense, is one which cannot be divided or distinguished by the mind into two or more ideas; such as, *sweet, bitter, red, rest, motion, thought, wish.*

A *complex* idea is made by joining two or more simple ideas together; as, *square,* (which implies surface, equiangular, equilateral, quadrilateral, rectangular), *cube, pen, reading, truth, man, horse, swift horse;* everything that can be separated by the mind into two or more ideas, is called *complex.*

Since our minds cannot survey the several parts of any compound being in a single view, we must take it to pieces, as it were, and consider the parts separately, so that we may have a more complete conception of the whole. In forming such complex conceptions of objects or actions, we consider in a general view their *essential properties* only, without regard to their *points of difference.* Thus, reverting to the examples at the head of this lesson, the essential properties of a *bird* are, a *body covered with feathers, a beak, two wings, two feet,* &c., because any being existing without them

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would not be a bird. In considering the term "bird," we do not think of a particular bird,[1] as a *swallow*, *sparrow*, &c., but of a being which has *feathers*, *a beak*, *two wings*; consequently we think only of the *essential characteristics* of a bird, without regard to the colour of the feathers, size of the bird, &c., which are *accidental* attributes belonging to particular kinds of birds. In the same way, if we consider the term "tree," we do not think of the *oak*, *fir*, *linden*, or *apple-tree*, but of the essential properties which constitute a tree. Of the action denoted by the term "to write," the essential characteristics are, *action* by means of which letters are *represented* and *joined* to form words; writing with a *pen* or *pencil*, *slowly* or *quickly*, *distinctly* or *indistinctly*, are *accidental characteristics*.

128 *Questions.*—Which are the essential properties of a *tree*, *schoolroom*, *knife*, *bird*? Are *root*, *stem*, *branches*, *leaves*, essential or accidental parts of a *tree*? In thinking of what is denoted by the term "horse," do you think of a horse in general, or of a *brown*, *black*, *white*, *young*, or *large* one? Are these essential properties? Have all horses similarly shaped *heads*, *bodies*, *necks*, *manes*, *feet*, *tails*, &c.? Are these shapes, then, essential properties, or not? Why? What conception do they form, as a *whole*? What kind of ideas do you therefore join together in forming a complex notion?

129 (2.) Some complex ideas comprehend other complex ideas, and are therefore *more general* than those which they include. For example, the term "singing bird" does not designate any particular singing bird, but, in a general and indefinite sense, any bird that can sing, such as the *lark*, *nightingale*, *thrush*, &c. So that the idea expressed by the

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[1] At least, from a logical point of view. Practically speaking, it is, to say the least, doubtful whether we can think of a bird without thinking of some particular bird.

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term "singing bird," includes the ideas of "lark," "nightingale," "thrush," &c.

Questions.—What birds are comprehended under the terms "bird of prey," "swimming bird"? What single notions do you conceive to be comprehended under the term "jug"? Which of the four ideas, "singing bird," "bird of prey," "bird," "swimming bird," is the most general? Why? Does the term "singing bird" suggest the idea of a bird of prey, or of a swimming bird? Why not? Are the latter ideas comprehended in the former? What other ideas (of distinct species) does the "singing bird" comprehend? If "singing bird" is compared with "lark" or "finch," which is the more general term? Why? 130

(3.) An idea regarded as included in a more general one, is a *subordinate* or *inferior* idea. For example, the terms "nightingale," "lark," "thrush," are subordinate, relatively to the term "singing bird." So the terms, "singing bird," "bird of prey," &c., are subordinate to the term "bird." 131

Questions.—Which of the terms, "apple-tree," or "fruit-tree," is the more general? Why? Similarly compare the terms, "domestic animal" and "cow," "rapacious animal" and "wolf," "star" and "heavenly body."

(4.) The *more general* term, relatively to the subordinate term, is called the *genus*, because it comprehends various sorts or species possessing some common attributes. Thus "singing bird" denotes the *genus* of which "lark," "linnet," "nightingale," &c., are the *species*, comprehending all those beings, actions, qualities, &c., the essential attributes of which are assumed to be *identical*. 132

Questions.—What is comprehended in a genus? If we have to determine whether a term denotes a genus or species, how many terms at least must be mentioned? Why? When is "fish" a *genus*, and when a *species*? Mention the *genera* of *coat*, *house*, *paper*, *hammer*, *wine*, *bread*. What are *clothing*, *building*, *writing materials*,

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tools, drink, food, when compared with the preceding terms? Name some kinds of *fruit-trees, forest trees, books, knives, houses, rooms.* What are *apple, cherry* and *pear trees,* compared with the term "fruit-tree"? Name three kinds of *paper,* ten of *flowers.*

133 (5.) Species of the same genus are called *co-ordinate species.* *Example*—"Nightingale," "lark," "linnet," are co-ordinate species of the genus "singing-bird."

Questions.—What is a co-ordinate species? With what do co-ordinate species stand in a common relation? Which of the terms, *table, furniture, chair,* denote the *genus, species,* and *co-ordinate species?*

134 (6.) A term which denotes a *genus* relatively to a subordinate idea, denotes a *species* relatively to a more general idea. And, on the contrary, a term which, relatively to a more general idea, denotes a *species,* represents a *genus* relatively to a subordinate idea. Thus, "singing-bird" denotes a genus relatively to "lark," but a species relatively to "bird."

135 (7.) As a genus may be divided into species, so each species may be again divided into *individuals.* The ideas that we derive from external objects represent individuals. These individuals, when compared together, are found to resemble one another in certain particulars; and by collecting these points of similarity into *one* conception, we form a notion of *species.* For example—"The nightingale" is a species of the genus "singing-bird," but "Our brother William's nightingale" is an individual of the species "nightingale."

Obs. In order to lessen the difficulties of the following exercises, it would be well for the teacher to put questions upon genus, species, &c., like those in the preceding explanations, before the exercises are written.

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EXERCISES. 136

Ex. 205

Consider the following terms as *species*, and determine the *genus* to which they severally belong. *Example*—"The cherry is a *species* of stone-fruit."

1. Apple. 2. Tree. 3. Lemon. 4. Ink. 5. Duck. 6. Spade. 7. Violin. 8. Swallow. 9. Clay. 10. Grass. 11. Knife. 12. Ear. 13. Plough. 14. Coal. 15. Orange. 16. Sun. 17. Stork. 18. Tea. 19. Watch. 20. Violet. 21. Winter. 22. Lion.

Ex. 206.

Arrange the following terms as *species* under the six *genera* to which theybelong:

Example—Stone-fruit . . *genus.*

Peach . . . . } *species.*
Apricot . . . }
Cherry . . . . }
Plum . . . . }

1. Nectarine. 2. Damson, 3. Lead-pencil. 4. Beer. 5. Blood. 6. Brandy. 7. Ink. 8. Inkstand. 9. Vinegar. 10. Fortress. 11. Penknife. 12. Pen. 13. Glass. 14. Summer-house. 15. Prison. 16. Trousers. 17. Wood. 18. Hat. 19. Cherry. 20. Coal. 21. Church. 22. Coffee. 23. Rule. 24. Milk. 25. Oil. 26. Paper. 27. Palace. 28. Coat. 29. Shoe. 30. School-house. 31. Boot. 32. Castle. 33. Barn. 34. Stocking. 35. Stable. 36. Turf. 37. Tea. 38. Tallow. 39. Water. 40. Inn. 41. Waistcoat. 42. Wine. 43. Plum. 44. Alcohol.

Ex. 207.

Consider the following terms as *genera*, and find six species belonging to each of them. *Example—Gimlet, saw, chisel, plane,* and *file,* are species of the genus "tool."

1. Clothing. 2. Utensil. 3. Machine. 4. Weapon. 5. Writing materials.

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Ex. 208.

Find six terms, *co-ordinate* with each of the following terms, and arrange them under their *generic* terms. *Example*—"Industry." Co-ordinate terms are:—"Honesty, politeness, frankness, temperance, modesty, patience." Their generic term is "Moral qualities."

1. Idleness. 2. Memory. 3. Compassion. 4. Black. 5. To sew. 6. To go. 7. To learn.

Ex. 209.

Find a *generic* and a *specific* term applicable to each of the following terms, which are to be considered as denoting both *species* and *genera*. *Example*—

Generic Term.	Species. Genus.	Specific Term.
Amphibious animal . . .	Frog | Frog	Tree frog

1. Shell-fish. 2. Tree. 3. Butterfly. 4. Table. 5. Bird of prey. 6. Metal. 7. Oil. 8. Bee.

Ex. 210.

Arrange the following terms, so that each *genus* shall stand in connection with its *species*. *Example*—

Genus.	Species.
Tradesman	Baker.

1. Artist. 2. Soldier. 3. Countryman. 4. Musician. 5. Clergyman. 6. Shepherd. 7. Day. 8. Month. 9. Season. 10. Servant. 11. Judge. 12. Painter. 13. Mason. 14. Tuesday. 15. May. 16. Spring. 17. Officer.

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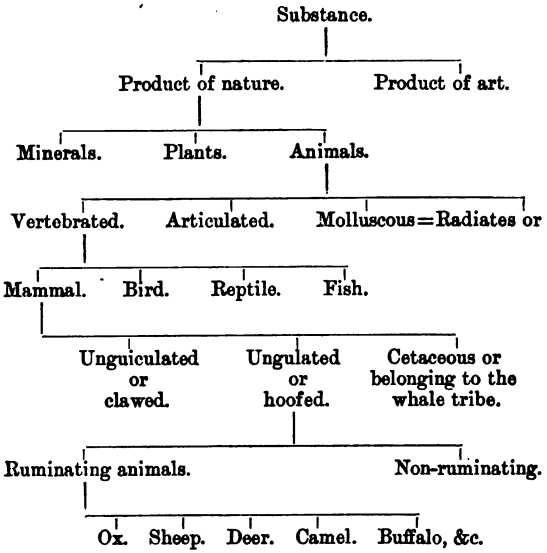
Analysis of Complex Ideas. 137

EXPLANATORY NOTES.



The term "substance" comprehends all the productions 138
of *nature* and of *art*. The term "natural product" comprehends all *minerals*, *plants*, and *animate beings*. The term "animal" comprehends all *vertebrated* and *articulated animals*, *molluscs*, and *radiates* or *zoophytes*. "Vertebrated animal" comprehends all *mammals*, *birds*, *reptiles*, *fishes*, &c.

Questions on the preceding examples.—What sort of idea is denoted by "substance" relatively to "product of nature and of art"? What are the two latter ideas relatively to "body"?

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Why? What does the term "body" comprehend? What ideas are ranged under "natural product"? What ideas does the term "animal" comprehend? What ideas are denoted by the terms "vertebrated," and "mammals"?

N.B. The preceding example shows that one complex idea often comprehends several others.

What ideas are denoted by the terms "Mineral, plant, tree, bush, herb"? What by the the term "bird"? What specific ideas are implied in the term "sheep"? What are "white, small, brown, large, young, and old sheep," relatively to the term "sheep"? What ideas does "to calculate" comprehend? What are the ideas denoted by "addition, subtraction, multiplication, and division," relatively to the idea "calculation"? What ideas does "working" comprehend? Does "working" include more or fewer ideas than "ploughing"? Do all complex ideas comprehend the same number of subordinate ideas? Give some examples.

139 EXPLANATIONS.

(1.) The whole of the objects which may be denoted by a *general* term, constitute its *extension*.

Questions.—What is the extension of the term "substance" in the explanatory example? What is the extension of the term "product of nature"? What do "vertebrated, articulated, and molluscous" together constitute? What is the extension of "product of art"? What general term includes "clothing, furniture, tool, building," &c?

140 (2.) The *generic* idea has a larger extension than the *specific*, that is, the genus comprises more objects than the species. Show this by the explanatory example.

Questions.—"Working" is more widely applicable than "ploughing," that is, it has a larger extension. Why? Is "working" comprised under "ploughing" or "ploughing" under "working"? Why? Which, therefore, is the more general term? Which has consequently the larger extension? What other subordinate ideas besides "ploughing" does "working" contain?

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(3.) All objects that belong to the *species* necessarily belong 141
to the *genus*. Show this by the explanatory example.

Questions.—What are the most general terms comprised under "substance," in the explanatory example? Is a "*product of nature*" a "substance"? What other name, therefore, can we give to a "*product of nature*"? Is a "*product of art*" also a "substance"? What may it, therefore, be called? To what does "mineral" belong? What other name can we give it? To what does a "plant" belong? How may it, therefore, be designated? Can we call a mineral a substance? To what genus does "vertebrated animal" belong? What else may we call it? May it also be called a "product of nature," or a "substance"? To what genus does "sheep" belong? By what names may it be denoted? Mention any objects to which the following terms are applicable: *ruminating animal, hoofed animal, mammal, vertebrated animal, product of nature, substance.*

(4.) From the preceding paragraph, it is evident that 142
specific ideas may be denoted, though indefinitely, by *general* terms, but that the reverse cannot take place.

Questions.—May all "substances" be called "products of nature"? Why not? What else may they be? Can we designate every "product of nature" a "*mineral*"? Why not? Are all "products of nature" "*animals*"? Are all "animals" "vertebrated"?

EXERCISES. 143

Ex. 211.

Arrange the following terms in the order of their *extension*, placing first the *most general*, as in the preceding explanatory example.

1. Starling—singing bird—bird—animal—a trained starling—creature—vertebrated animal—our neighbour's trained starling.

2. Fruit-tree—plant—tree—stone-fruit tree—black-heart cherry-tree—a ligneous or woody plant—product of nature.

3. Week-day clothing—worn-out clothing—clothing—worn-out woollen clothing—product of art—woollen week-day clothing.

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Ex. 212.

Under what *more general* terms may each of the following be classed? State as many of these more general terms as you can.

1. Nightingale. 2. Newfoundland dog. 3. Penny. 4. School-room. 5. Wild apple-tree. 6. Coach-maker. 7. Parish church. 8. Currant-bush.

144

Division of Ideas.

EXPLANATORY EXAMPLES.

(I.) *Men* may be divided into *classes* :

1. According to the *part of the world* in which they live: as, Europeans, Asiatics, Africans, Americans, Australians.
2. According to their *occupation* : as, farmers, fishermen, huntsmen, shepherds, tradesmen, artists, scholars, &c.
3. According to their *age* : as, old, young.
4. According to their *colour* : as, white, black, brown.
5. According to their *conduct* : as, good, bad.
6. According to their *religion*: as, Christians, Jews, Mahomedans, Pagans.

(II.) *Coins* may be classed :

1. According to the *metal* of which they are made: as, gold, silver, copper coins.
2. According to the *country* in which they are issued : as, English, German, French, &c.
3. According to their *age* : as old, new.
4. According to their *size* : as, large, small.
5. According to their *worth* : as, valuable, trifling.
6. According to their *weight* : as, light, heavy.

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(III.) (*False Classification.*)

Flowers are either—

1. Garden flowers, or
2. White flowers, or
3. Field flowers, or
4. Fragrant flowers, or
5. Yellow flowers.

Plants are either—

1. Woody plants, or
2. Trees, or
3. Forest trees, or
4. Garden trees, or
5. Oaks.

EXPLANATIONS.

(1.) We divide a complex term by indicating the species 145
comprised in it a sa genus. For instance, in the explanatory examples, the genus "man" is divided into *Europeans, Asiatics, fishermen, tradesmen*, &c., which terms are all species of the genus "man."

(2.) A complex term is divided according to certain *attributes*. Thus, "*tables*," can be divided according to their attributes—*use, colour, form, size, material*, &c. The attributes according to which the classification of "horse" can be made, are—*colour, native land, use, owner, temper, value*, &c.[1]

(3.) A complex term may be divided in various ways. For 146
example, the genus "flower" may be divided according to the form of the *root*; the shape, structure, substance, and

[1] The attribute according to which a division is made is called in logic *fundamentum divisionis*.

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size of the *stem;* the form of the *blossom; colour, scent, place* where found, *time* of blossoming, *use*, &c.

(4.) The various co-ordinate species of a genus may themselves be divided, and thus form *sub-divisions.* For instances, in the explanatory example, the term "European," which is a species of the genus "man," may be divided into "English," "German," "French," &c. The sub-division "English," may be sub-divided into "Yorkshiremen," "Kentishmen," &c.

147 (5.) A division is *false* :—1. When entirely *different* species are placed together as co-ordinate species. 2. When one species is placed with its genus, as a co-ordinate species. *Examples*—In the first example of false division [(III.) Explanatory Examples], the terms, "garden flowers," "field flowers," which belong to the same class, are placed together with "white flowers" and "yellow flowers," which form a different category; and again with "fragrant flowers," which form a distinct class. In the second example, "woody plants" are genus of "trees"; "trees" form the genus of "forest and garden trees"; "forest trees" are the genus of "oak tree." A division should therefore place together objects possessing the *same attributes,* and the genera should be placed before the species.[1]

148 EXERCISES.

Ex. 213.

Divide the genus "*table*" according to the following *attributes.* 1. Use. 2. Form. 3. Colour. 4. Size. 5.

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[1] In other words two or more *fundamenta divisionis* (v. § 145 note) must not be confounded. When they are, we have what is termed *Cross-Division.* See Fowler's *Deductive Logic,* 5th Ed. p. 59.

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Material. [Observe the same order as in Explanatory Ex.]

Ex. 214.

Divide the genus "*hat*" according to *form*, *colour*, *material*, *use*, *place* of manufacture, *by whom* worn, and in *what countries*. (Imitate the order in (II.) Explan. Ex.)

Ex. 215.

Place the following *specific attributes* under their proper *genera*, such as, *colour*, *form*, *material*, *taste*, *good quality*, *defect*. *Example* :—*Colour*—violet—indigo—blue—green—yellow—orange—red.

1. Sandy. 2. Resinous. 3. Black. 4. Angular. 5. Golden. 6. Waxen. 7. Azure. 8. Sour. 9. Talkative. 10. Compassionate. 11. Sweet. 12. Bitter. 13. Obstinate. 14. Obliging. 15. Blunt. 16. Quadrangular. 17. Flaxen. 18. Industrious. 19. Round. 20. Idle. 21. Long. 22. Narrow. 23. Honest.

Ex. 216.

Divide the following terms according to various attributes. For an example, see the various classifications of the term "flower" in (III.) Explanations.

1. Flower. 2. House. 3. Book. 4. Horse.

Ex. 217.

Correct the following *false* divisions :—

1. *Birds* are either birds of prey, tame birds, birds of passage, or singing birds. 2. *Wood* is either fuel, hard wood, or timber. 3. *Clothing* is either silk, winter, every-day, or woollen clothing.

Point out the rules which have been neglected in these classifications. [See Explan. (5.)]

Ex 218.

Write thirty names of *trades* or *professions*, and classify

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them according to certain divisions and sub-divisions. *Examples*—

Tradesmen who provide us with *food :*

1. Those who supply *vegetable food :* miller, baker, greengrocer, brewer.
2. Those who supply *animal* food : butcher, fishmonger, poulterer.

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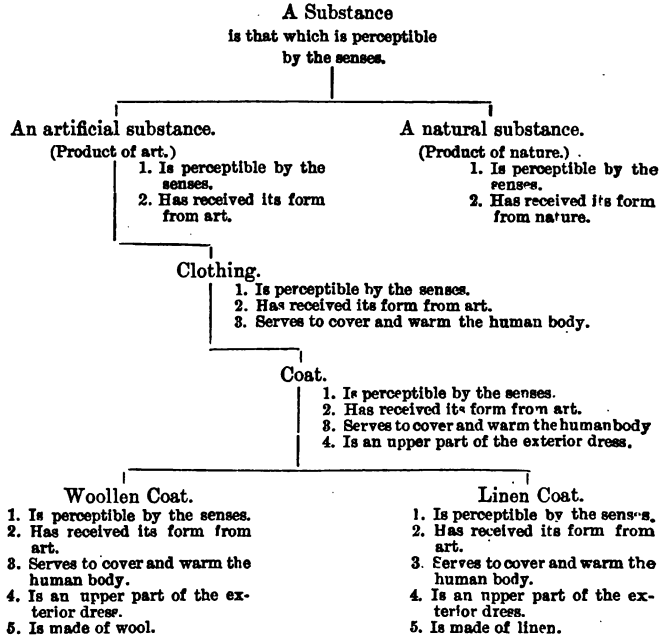
149 ## *Content of Complex Ideas.*

EXPLANATORY EXAMPLES.


A Substance
is that which is perceptible by the senses.
An artificial substance.
(Product of art.)
1. Is perceptible by the senses.
2. Has received its form from art.
A natural substance.
(Product of nature.)
1. Is perceptible by the senses.
2. Has received its form from nature.
Clothing.
1. Is perceptible by the senses.
2. Has received its form from art.
3. Serves to cover and warm the human body.
Coat.
1. Is perceptible by the senses.
2. Has received its form from art.
3. Serves to cover and warm the human body
4. Is an upper part of the exterior dress.
Woollen Coat.
1. Is perceptible by the senses.
2. Has received its form from art.
3. Serves to cover and warm the human body.
4. Is an upper part of the exterior dress.
5. Is made of wool.
Linen Coat.
1. Is perceptible by the senses.
2. Has received its form from art.
3. Serves to cover and warm the human body.
4. Is an upper part of the exterior dress.
5. Is made of linen.

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EXPLANATIONS.

1. The essential attributes involved in a complex idea 150
are its *content:* for instance, in the explanatory example, the essential attributes of the idea "natural body" are: "It is perceptible by the senses;" "Has received its form from nature." The attributes, "perceptible by the senses," "has received its form from art," are the content of the idea "artificial body." The attributes, "perceptible by the senses," "has received its form from art," "serves to cover the human body," are the content of the idea "clothing." The attributes, "perceptible by the senses," "has received its form from art," "serves to cover the body," "is an upper part of the exterior dress," the content of the idea "coat." So the attributes 1, 2, 3, 4, and 5, make up the idea "woollen coat." In this example, *artificial* and *natural body* are the species of the genus "substance." *Clothing* is a species of the genus "artificial substance." *Coat* is a species of "clothing," and *woollen coat* of "coat."[1]

(2.) Inasmuch as a species is a *defined* part of a genus, it 151
requires a greater number of terms for its expression than the genus does; and the more limited the species, the larger is the number of terms required. This is shown by the preceding example, in which the most limited species, "woollen coat," is defined by five terms; whereas the most

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[1] The essential attributes which have been called above the content of the complex idea, may also be said to be *connoted* by the term expressing that idea. And as, in discussing the extension of terms, we measured their extension by the number of objects *denoted*, so here we measure what is called the *intension* of a term by the number of attributes *connoted* or implied.—See Fowler's *Deductive Logic*, Part I. ch. ii. Note, 5th Ed. p. 19ff.

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extensive genus, "substance," is defined by one. Thus the most limited idea not only comprehends all the essential attributes of those to which it is subordinate, but others not involved in the more general ideas, and by which it is distinguished from them.

(3.) *Co-ordinate* species possess in common the essential attributes of all the genera to which they belong, but they are *distinguished* from one another by *special attributes*. Thus, in the explanatory examples, "woollen coat" and "linen coat" are co-ordinate species. They possess all the essential attributes of their genera, but are distinguished from each other by the one being made of *wool*, and the other of *linen*.

(4.) Care should be taken not to confound *intension*[1] and *extension*; the observations on both must be carefully compared. Thus Rule 2, § 140 is no contradiction of Rule 2, § 151. In fact, it will be seen that the *intension* of a term varies inversely as its *extension*.

152 EXERCISES.

Ex. 219.

The *content*[2] of the ideas denoted by the following terms is to be stated in accordance with the explanatory examples. Observe the same order, and let each idea be defined by at least one attribute more than the *more general* idea to which it is referred.

1. Body—production of art—money—bank notes—coined money—gold coins—silver coins—copper coins—sovereigns—crowns—shillings—pence.

2. Plants—woody plant—herbaceous plant—tree—shrub—forest-tree—garden-tree—fruit-tree—stone-fruit-tree—apple-tree—pear-tree—wild apple-tree.

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[1] See 149 note. [2] Or, Intension.

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Ex. 220.

The *content*[1] of the ideas denoted by the following terms is to be stated in simple sentences. *Example*—The content of "horse," is: (1) that it can be perceived by the senses; (2) has been formed by nature; (3) is a vertebrated animal, with four legs, a mane, the power of rapid motion; (4) is graminivorous.

1. Animal. 2. Tree. 3. Hammer. 4. Snow. 5. Key. 6. Balance. 7. Carriage. 8. Steam-engine.

Definition and Description of Complex Ideas. 153

EXPLANATORY EXAMPLES.

(I.)—A *crown* is a silver coin, equal in value to five shillings.

1. A *silver coin* is a piece of money made of silver, of a certain value.

2. A *coin* is a piece of money made of metal, to which a certain value is attached.

3. A *piece of money* is a production of art employed as a medium of exchange.

4. A *production of art* is a substance which has received its form from man.

5. A *substance* is any thing which is perceptible by the senses.

(II.) *Water* is that colourless fluid which appears either in a liquid state, or in the form of vapour; it possesses neither taste nor smell, serves for drinking, cooking, washing, &c.

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[1] Or, Intension.

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154 EXPLANATIONS.

(1.) It has been shown in § 127, Explanation (1), that *complex* ideas only can be defined, *i.e.*, divided into the parts of which they consist. *Simple* ideas cannot be defined, or, divided, because they are not made up of separable parts. Ideas such as are denoted by the terms *red*, *sweet*, *to move*, &c., are of this kind, and hence they cannot be *defined* logically. They may nevertheless be *described* and rendered clear by *classifying* or dividing them, according to their *extension*. The simple idea *red*, for instance, may be divided as *scarlet*, *purple*, *rose*, &c.; *to move*, as *going*, *running*, *flying*.

155 (2.) We define an idea, if we first state its *proximate genus*,[1] and all those essential *attributes* by which it is distinguished from its co-ordinate species.[2] This is an *exact* definition. A *short* definition is one in which we merely state the *genus* and the particular *attribute*.[3] *Example*—In order to define briefly the idea denoted by *crown piece* in the explanatory examples, we should say: "A crown piece is a silver coin (*genus* of crown piece), equal in value to five shillings (*essential attribute* by which the crown piece is distinguished from its co-ordinate species, *viz.*, other silver coins). But in order to define crown piece *exactly*, we should state its *size*, *inscription*, &c., &c.

In cases where a definition is very difficult, or impossible,

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[1] *i.e.*, the genus immediately above it, without passing over any intermediate genus.

[2] *i.e.*, all the other species coming under the same genus. In other words we give a full definition by naming the proximate genus, and adding the connotation of the species to be defined.

[3] This particular attribute is called in Logic *differentia*, whence the formula *Definitio est per genus et differentiam.*

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because the component parts of the idea cannot be fully stated, a *description* must be given; *viz.*, an explanation of all the attributes of an object, so as to render the conception of it as clear and complete as possible. (See preceding explanations, Simple Ideas.)

(3.) The attributes employed in definition must be *affirmative*. Negative attributes are to be used only when it is necessary to draw a distinction between ideas which cannot be otherwise distinguished. Thus a *crown piece* is not defined by saying that it is neither a gold nor a copper coin, and that it is not of the same value as a florin, shilling, or sixpence. 156

(4.) A definition is *too large*, when it is applicable to more ideas than the one we wish to explain. For example, the definition, "A *boot* is an article of dress made of leather," is too large, because it applies to "leather breeches," "leather caps," &c. 157

(5.) A definition is *too narrow*, when it does not comprehend all the objects belonging to the defined idea. For example, the definition, "A fence is the boundary of a garden," is too narrow, because it does not comprehend the fences around fields, court-yards, &c. 158

(6). A definition should not contain superfluous, unessential attributes, or ambiguous and obscure expressions. 159

(7.) The word expressing the idea to be defined must not be used in the definition itself. Thus, it is incorrect to say, "A tree is a *tree* with a strong woody trunk." It should be: "A tree is a woody plant," &c. For the same reason, the following definitions are faulty: "Oil is a fat, *oily* liquid, which does not mix with water." "A plough is an instrument to *plough* the ground." 160

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Ex. 221.

161 Define the subjoined terms in accordance with the following example: "The bird which has long wings and a divided tail, which usually builds its nest of mud under the roofs of houses, which in autumn migrates to warmer climates, and which is distinguished by a twittering voice, is called the *swallow*."

1. Tree. 2. Shrub. 3. Flower. 4. Room. 5. Cellar. 6. Spring. 7. Brook. 8. River. 9. Lake. 10. Canal. 11. Mountain. 12. Hill. 13. Rock. 14. Field. 15. Wood. 16. Desert.

Ex. 222.

The following isolated attributes are to be logically connected, so as to form *a definition*. *Examples*—1. "*Thunder* is the name by which we designate the loud rolling noise in the air which is heard during an electrical storm." 2. "The immense mass of water on the surface of the earth which surrounds all the continents and islands of the globe, and which covers about two-thirds of its surface, is called *sea*."

1. A colourless liquid, existing in the form of a fluid or of vapour, having neither smell nor taste, and serving for cooking, washing, drinking, &c.

2. A mammal that has commonly a pointed head, cold snout and short toes, is very intelligent and faithful; watches our houses and property.

Ex. 223.

Define the ideas denoted by the following terms, in the same manner as the preceding.

1. Wine. 2. Oil. 8. Stable. 4. Hats. 5. Shoe. 6. Lamp. 7. Plough. 8. Saw. 9. Bottle. 10. Violin. 11. Hail. 12. Snow. 13. Dew. 14. Ice. 15. Island. 16. River.

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Ex. 224.

Examine and rectify the following definitions.

Example—"A *boot* is a product of art consisting of leather." This definition is *too large*, because it may be applied to a *leather purse*, *knapsack*, and many other articles.

Corrected thus, "A covering for the feet, which is made of leather, and protects the foot and part of the leg, is called a *boot*."

1. A *mirror* is an object in which we see our image (too large). 2. *Straw* is that part of corn which is used for binding (too narrow). 3. *Wax* is a soft body of which candles, figures, and other objects can be made (too large). 4. *Brick* is a product of art, made of clay (too large). 5. *Glue* is a liquid used for joining (too large). 6. *Resin* is an adhesive substance obtained from trees (too large).

Ex. 225.

Define the following ideas expressing a *quality*. *Examples*—1. "A *large* house is one which occupies an extensive area, and contains space to shelter many persons, and to hold much furniture. There are *large* towns, villages, countries, rivers, lakes, mountains." 2. A *dense* body is one whose particles adhere closely and exactly to one another, leaving no empty spaces; consequently it cannot be easily compressed."

1. New. 2. Wide. 3. Small. 4. Short. 5. Sour. 6. Sweet. 7. Fireproof. 8. Waterproof.

Ex. 226.

1. Hard. 2. Loose. 3. Soft. 4. Tough. 5. Liquid. 6. Firm. 7. Rough. 8. Smooth. 9. Heavy.

Ex. 227.

1. Light. 2. Slow. 3. Quick. 4. Little. 5. Flat. 6. Hollow. 7. Wet. 8. Low. 9. Deep.

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Ex. 228.

Define the following ideas expressing *action*. *Example*— "*To go* implies change of place. Men and most animals can *go*. Infants cannot go, although they have feet. Children go to school; men to work," &c.

1. To run. 2. To creep. 3. To crawl. 4. To stride. 5. To spring. 6. To jump. 7. To ascend. 8. To climb.

Ex. 229.

1. To fall. 2. To sink. 3. To ride. 4. To drive. 5. To flee. 6. To fly. 7. To swim. 8. To seize. 9. To attack.

Ex. 230.

Define the following ideas according to the subjoined example:

"The pupil who fixes his attention while at school upon the instruction of his teacher, and who, consequently, suppresses all thoughts unconnected with the subject of study, is *attentive*."

1. Good. 2. Bad. 3. Useful. 4. Obnoxious. 5. Right. 6. Wrong. 7. Just.

Ex. 231.

1. Honest. 2. Frank. 3. Sincere. 4. Malicious. 5. Proud. 6. True. 7. Faithful. 8. Compassionate.

Ex. 232.

1. Avaricious. 2. Hypocritical. 3. Obstinate. 4. Economical. 5. Prudent. 6. Generous. 7. Suspicious. 8. Benevolent.

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CHAPTER XII. 162

CAUSE AND EFFECT.

By the term "cause" is designated the condition under which something happens; consequently everything that happens must have a cause. Now, by being taught to observe that there is no cause that does not produce some effect, and no effect that is not produced by some cause; that one effect may have *several* causes, and *vice versâ*; that there are causes or actions which have bad effects as well as good ones,—the pupil is led to meditate on his actions before performing them, and to be cautious in judging others, in proportion as he becomes more clearly conscious how difficult the discovery of true causes often is.

Distinction between Cause and Effect. 163

EXPLANATORY EXAMPLES.

(1.) If there is a fire in the stove, the room becomes warm. The *fire* is the *cause*; the *warming* of the room, the *effect*.

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(2.) If it rains, the ground becomes wet. The *rain* is the *cause*, and the *humidity* of the ground the *effect*.

(3.) If the wind blows, the trees move. The *wind* is the cause of the *motion* of the trees. The *motion* is an effect produced by the *wind*.

(4.) A child fell and broke a vase. The *falling* of the child was the cause of the damage; the *breaking* of the vase, the effect of that fall.

EXPLANATIONS.

164 (1.) *Cause* is that which makes or produces something.

(2.) *Effect* is that which originates in, or is produced by, a cause.

(3.) Where there is an effect, there exists, or has existed, a cause. Nothing happens without a cause. Hence every cause is also an effect.

EXERCISES.

165 Ex. 233.

Distinguish between the *cause* and the *effect* in the following sentences. *Example*—"Through eating immoderately, he became ill." Here *immoderate eating* is the cause, and the *illness* is the effect.

1. After taking exercise, we feel hungry. 2. Many men become poor through gaming. 3. Much study by night impairs the sight. 4. That man is poor, because he is intemperate. 5. A wicked boy threw stones at a lame man, and thus caused him to fall. 6. In spring the rivers swell, in consequence of the melting of the snow. 7. The corn is nearly ripe, in consequence of a long continuance of warm weather. 8. Nations, not knowing their true interests, often engage in ruinous wars.

Ex. 234.

Express the sentences in the preceding Exercise in a different manner, and employ the words *cause* and *effect*.

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Example—" Eating immoderately was the *cause* of his being ill." " His being ill was the *effect* of immoderate eating."

Ex. 235. 166

Indicate the *cause* and the *effect* in the following examples :

1. Rough boards are made smooth by planing. 2. Wood floats upon the surface of the water, because its specific gravity is less than that of water. 3. The stone sinks in water, because it is the heavier substance. 4. The child weeps for the loss of his parents. 5. Many persons have died through fright. 6. The faces of countrymen become tanned through the heat of the sun. 7. Evening mists are produced by the condensation of vapours rising from the warm earth. 8. Active industry promotes healthful vigour. 9. The snow protects the seed from frost. 10. The fixed stars appear small, on account of their immense distance. 11. Clouds float in the air, because they are light. 12. The higher strata of the atmosphere press upon the lower, which are, consequently, denser. 13. The west winds pass over a large expanse of water, therefore they bring rain. East winds, on the contrary, which pass over great continents, bring clear weather. North winds, which pass over a small extent of water, occasionally bring rain. 14. The boy became ill, in consequence of drinking cold water while he was hot. 15. After long illness, the patient is very weak. 16. We rise refreshed after sound sleep. 17. By long continued heat, the earth becomes parched.

Ex. 236. 167

The following words may be considered as indicating either a *cause* or an *effect*. Of those which may be considered as a cause, state the effect; and of those which are regarded as an effect, state the cause. *Example*—" A *wound* is the cause of *pain*; " or, " A *wound* is the effect of a *blow*."

1. Eating. 2. Sleep. 3. Waterspout. 4. Poverty. 5. Pain. 6. Fatigue. 7. Rain. 8. Devastation. 9. Dissipation. 10. Hunger. 11. Inundation. 12. War. 13. Humidity. 14. Warm room. 15. Work. 16. Snow. 17. Health. 18. Joy. 19. Cold. 20. Temperance. 21. Fright. 22. Thirst. 23. Sadness. 24. Death. 25. Tears. 26. Industry. 27. Reward. 28. Paleness.

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Ex. 237.

The following sentences express *causes*, and for each of them an *effect* is to be found. Let the sentence expressing the effect be connected with the preceding sentence by the word *therefore*, or some other conjunction. *Example*—"The harvest is abundant, therefore food will be cheap."

1. In winter, the sun rises late and sets early. 2. In winter, the air is cold. 3. In spring, the ice and snow melt. 4. In summer, the rays of the sun are very hot. 5. The pupil has been inattentive. 6. The workman has performed a very laborious task to-day.

168

Ex. 238.

Consider the following terms as denoting *causes*, and find an *effect* for each of them. *Example*—"Fire." Say, "*Warmth* is the effect of *fire*."

1. Cloud. 2. Pain. 3. Storm. 4. Snow. 5. Intemperance. 6. Improvidence. 7. Inattention. 8. Great knowledge. 9. Hot room. 10. Bad pen. 11. Fertile season. 12. Aversion to labour. 13. High Water.

Ex. 239.

The following sentences express *effects*, of which the pupil is to find the *causes*. *Example*—"The night is very dark, because the sky is quite overcast."

1. The night is clear. 2. In autumn, the days become shorter. 3. In winter, the nights are longest. 4. The ice broke under the boy. 5. The boy sank in the water. 6. Ships are wrecked. 7. Many battles are won. 8. Kings have been driven away. 9. Great nations have fallen. 10. Slaves have revolted. 11. Rivers have inundated countries.

Ex. 240.

Consider the following terms as denoting *effects*, and find a *cause* for each of them. *Example*—"Wealth is the effect of industry."

1. Death. 2. Trembling. 3. Falling of a house. 4. Wound. 5.

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Drinking. 6. Sighing. 7. Arrival of the storks. 8. Cheap food. 9. Anger. 10. A bad conscience. 11. Drowning. 12. Disordered stomach. 13. Travelling. 14. Agreeable odour. 15. Fertility of the field. 16. Short sight.

Several Causes of one Effect, and several Effects of one Cause. 169

EXPLANATORY EXAMPLES.

(1.) A man may become *rich* by inheritance, industry, skill, useful inventions, gifts, fraud, avarice, gaming, &c. The effect, "wealth," may therefore be produced by several causes.

(2.) The causes of *death* may be: exhaustion, as in old age; illness; accidents of many kinds; suicide; murder; capital punishment, &c. Death may therefore be the effect of various causes.

(3.) *Fire* warms and lightens: it reduces wood to ashes; it consumes oil, tallow, and other combustible substances; it causes water to boil; it melts metals; it burns clay hard; it reduces many substances to powder. The cause, "fire," may therefore produce several very different effects.

(4.) A *thunderstorm* may produce the following *effects*: promote the fertility of the earth; set trees and buildings on fire; kill men and other animals; frighten the timid; cause admiration and awe.

EXPLANATIONS. 170

(1.) One effect may be produced by several causes.[1]

(2.) Several effects may originate in one cause. Con-

[1] This is called in Logic the doctrine of the *Plurality of Causes.*

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sequently, from one cause we cannot infer one effect only, because one cause may have several effects.

Obs. As many actions may produce bad as well as good effects, we should learn to consider the various consequences of our actions before we perform them.

(3.) Of a single effect, we can very seldom ascertain the undoubted cause.

Obs. We should therefore be very cautious in judging others, and slow to attribute their actions to unfavourable causes, until such causes are proved.

171 EXERCISES.

Ex. 241.

Find for each of the effects, denoted by the following terms, as many possible causes as you can imagine. *Example*—"To tremble." A man may *tremble* from fear, through fright, from joy, through anger, old age, exhaustion, and with cold.

1. Falling of a house. 2. Wound. 3. Drinking. 4. Sighing. 5. Anger. 6. Joy. 7. Illness. 8. Wealth. 9. Poverty.

Ex. 242.

Consider each of the following sentences as the statement of an *effect*, and find several *causes* for it. *Example*—"Our neighbour's corn does not prosper." The *causes* may be, bad soil; want of rain; too much rain; bad cultivation; want of manure; bad seed; blight; destruction caused by animals; cold weather, &c.

1. The pupil learnt nothing. 2. A house was burnt down. 3. There was a noise on the floor during the night. 4. The pupil was absent from school. 4. The fruit tree in the garden is withering. 6. The pupil has carefully prepared his exercise. 7. Many men are mistrustful 8 The girl is proud. 9. The child is obedient.

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Ex. 243.

Consider each of the following terms as denoting a cause, and state several effects which may be produced by each. *Example*—"Cloud." A cloud may produce the following effects: obscuring the sun, lowering the temperature, &c.

1. Snow. 2. Intemperance. 3. Eating. 4. Ignorance. 5. Industry. 6. Distrust. 7. War.

True, Imaginary, and Impossible Causes and Effects. 172

EXPLANATORY EXAMPLES.

(1.) A man may become rich by industry, and through presents. Therefore, although some men become rich by fraud and avarice, it would be false to affirm that these were the causes of that man's wealth.

(2.) If any one pretended he had become rich because he had discovered the art of changing iron into gold, a cause would be adduced which could not possibly exist.

(3.) Riches have the effect of making many persons hospitable and liberal towards their fellow creatures; whilst they render others proud and avaricious, they cannot, of themselves alone, add either to the wisdom or learning of any one.

EXPLANATIONS. 173

(1.) Causes which really produce a given effect, are *true* causes. [See Explan. Ex. (1).]

(2.) Causes which might have, but have not really produced certain effects, are termed *imaginary* causes. Thus, if it should be thought that a person, who had died of

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natural disease, had been poisoned, poisoning would be the *imaginary* cause of his death.

(3.) A supposed cause, which can never really occur, is termed an *impossible* cause. [See Explan. Ex. (2).]

(4.) The same remarks apply to *effects*. [See Explan. Ex. (3).]

EXERCISES.

174 Ex. 244.

Narrative.—A man, who had gone to rest in very good health, was, on the following morning, found dead in his bed. A number of persons assembled in his chamber, every one wondering what could be the cause of his death. Of violence there was not the slightest indication: therefore, the greater part supposed that he had been seized with a fit of apoplexy. "Do you not know," said the maidservant, who had hitherto been silent, "that this house is haunted? I think the ghost has caused his death." Some laughed; others believed it to be the most probable explanation, and wanted to hear more of the ghost, when the physician arrived. Having first minutely examined the dead body, he looked about the bed-room. There he observed a large charcoal-pan. "Did the deceased take burning charcoal into his bed-room yesterday evening?" he enquired. "Yes," answered the maidservant, "for it was very cold, and he expressed his intention of writing a letter." "There we have the cause," said the physician: "he has been suffocated by the fumes of the charcoal."

Questions.—In this narrative, which is the *true* cause of death? Why? Which is the *imaginary* cause? Why? Which is the *impossible* cause? Why.

Ex. 245.

Write similar narratives, in which *true*, *imaginary*, and *impossible* causes and effects occur.

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Original, Proximate, and Intervening Cause; First, Intervening, and Last Effect. 175

In many cases an evil cannot be removed or averted, or injustice in judgment and action avoided, unless we proceed from cause to cause, till we find the real one. It is therefore highly important, both intellectually and morally, to draw attention to the connection of a series of causes and effects; for the clear comprehension of how one effect may become the cause of another not only teaches foresight and prudence, but may preserve us from conduct the injurious consequences of which often only appear after many intervening effects.

EXPLANATORY EXAMPLES. 176

(1.) *Cause.* — *Effect.*

Wound ..... Pain.

Shot ..... Wound.

Obs. If we place *wound* and *pain* in connection we must consider wound as the *cause* of pain; but if we place *wound* and *shot* together, wound appears as the *effect* of shot.

(2.) *Cause.* — *Effect.*

Fatigue ..... Sleep.

Long watching ..... Fatigue.

Obs. If the words *fatigue* and *sleep* are placed together, fatigue is the *cause* and sleep the *effect;* but if *fatigue* is placed in connection with *long watching*, it is the *effect* of long watching.

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(3.) *Cause.* *Effect.*

Wound .....Pain.
Shot fired by a wicked youth...Wound
Disobedience to parents .....Shot fired by a wicked youth.
Corrupt heart .....Disobedience to parents.
Bad example of others.....Corrupt heart.

Chain of Causes: Bad example of others—corrupt heart—disobedience to parents—shot fired by a wicked youth—wound.

Obs. Each of the above causes may itself be the effect of another cause.

(4.) *Cause.* *Effect.*

Fatigue .....Sleep.
Long watching .....Fatigue.
Illness of one's father .....Long watching.
Fatiguing work.....Illness of one's father.
Bad times .....Fatiguing work.
Bad harvest .....Bad times.
Unfavourable weather.....Bad harvest.
Natural catastrophe .....Unfavourable weather.

Chain of Causes: Natural catastrophe—unfavourable weather—bad harvest—bad times—fatiguing work—illness of one's father—long watching—fatigue.

Obs. Each of the preceding causes may, as in (3), be itself the effect of another *cause*.

177 EXPLANATIONS.

(1.) "Cause" and "effect" are *relative* terms. Hence, that which in one relation is a *cause*, may in another be an *effect*. [See Explan. Ex. (1) and (2).] Cp. also § 164.

This effect, again, may be the cause of another effect, and in this manner a *chain* of cause and effects may be formed. [See Explan. Ex. (3) and (4).]

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(2.) The cause from which all effects of a certain kind are derived, and which is *not considered* as itself an effect, is the *original cause.*

Questions.—Which is the *original cause* in the Explan. Ex. (3) and (4)? Why?

(3.) That which is the *immediate* cause of an effect, is the *last* or *proximate cause.*

Questions.—Which are the *proximate* causes in the preceding examples? Why?

(4.) The causes which come between the original and the proximate causes, are the *intervening causes.*

Questions.—In the preceding examples, which are the *intervening* causes? Why?

(5.) The same applies to *effects.* (The *last* effect is that which is *not considered* as the *cause* of a new effect.)

Questions.—In the preceding examples, which are the *first, intervening,* and *last effects*? Why?

EXERCISES. 178

Ex. 246.

In the following series, distinguish the *original, proximate,* and *intervening* causes; also *first, intervening,* and *last* effects.

1. Poverty—dissipation—corrupt desires—want of good education—early loss of parents—drowning—excursion by water—invitation of companions.

2. Bad education — intemperance — stealing — imprisonment—contempt and disgrace—loss of character—want of occupation—hunger and misery.

Ex. 247.

Write some narratives in which *chains* of causes and effects occur.

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CHAPTER XIII.[1]

AIM (OR PURPOSE) AND MEANS.

EXPLANATORY EXAMPLES.

(1.) 1. He who sows, hopes to reap. 2. He who wishes to obtain success, must work assiduously. 3. The man who desires to enjoy good health, must live temperately.

(2.) 1. We eat to live. 2. We sleep, that our vigour may be renewed. 3. Children go to school to acquire knowledge.

(3.) 1. The patient takes medicine that he may recover his health. 2. The gardener waters the flowers, that they may not fade. 3. The farmer manures his field to render it more fertile.

(4.) A man works to gain his living, to become wealthy, to live more comfortably, to be enabled to give his children a good education, to leave them property, to support his relatives, to be able to assist the poor and unfortunate, &c.

(5.) We may communicate with a person residing at a distance from us, by sending a letter by post, by visiting him, by sending a messenger, by the favour of a friend, by the electric telegraph, &c.

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EXPLANATION.

(1.) What we wish to attain is our *aim* or *purpose*. That by which we attain it, is the *means*. [See Explan. Ex. (1), (2), (3).]

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[1] This subject has been incidentally met with in the section on Complements of Cause (§ 58 *ff.*).

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(2.) We may attain *several different aims* by the *same means*. [See Explan. Ex. (4)].

(3). We may attain the *same aim* by *several different means*. [See Explan. Ex. (5)].

(4.) He who desires to attain an *aim*, must employ the necessary *means*; for example, he who wishes to *excel*, must be both *diligent* and *persevering* in his studies.

EXERCISES. 181

Ex. 248.

In the following sentences, distinguish the *aim* and the *means*. *Example*—"He who wishes to be loved, must be amiable." To be loved is the *aim*; to be amiable, the *means*.

1. He who wishes to avoid punishment, must fulfil his duties. 2. He who would escape a fall, must be cautious. 3. The man who desires to live in peace with others, must be gentle and forbearing. 4. He who wishes to borrow, must show himself trustworthy. 5. In order to acquire knowledge, we must employ diligence and research. 6. He who wishes to correct his faults, must submit to reproof. 7. He who desires to obtain wealth, must be both industrious and economical. 8. To become sound scholars, we must reflect as well as read. 9. He who would learn how to command, must know how to obey. 10. We must save while we are young, if we wish to avoid poverty in old age.

Ex. 249.

Write from ten to fifteen sentences similar to the preceding.

Ex. 250.

By what *means* may the following aims be best attained? *Example*—"To *overcome difficulties*." Say

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"Difficulties are best overcome by patient endurance and by energy."

1. To recover a lost article. 2. To strengthen oneself. 3. To cheer oneself. 4. To be loved. 5. To live in peace. 6. To sleep soundly. 7. To become skilful. 8. To reach old age. 9. To enjoy a hearty old age. 10. To gain confidence. 11. To communicate our thoughts. 12. To preserve anything. 13. To overtake another person.

Ex. 251.

The following exercises contain phrases indicating either the *aim* or the *means*. To those denoting the aim, the *means* must be added; and where the phrase is considered as denoting the means, the *aim* must be expressed. *Example*—To give presents (*means*) is an incitement to diligence (*aim.*)

1. To give presents. 2. To go quickly. 3. To eat. 4. To go gently. 5. Incitement to industry. 6. To preserve from error. 7. To open a book. 8. To find. 9. Not to disturb. 10. To overtake. 11. To warm. 12. To look for. 13. To obtain help. 14. To take medicine. 15. To quench thirst. 16. To take off one's hat. 17. To cry. 18. To play at tennis. 19. To recruit the health. 20. To destroy noxious animals. 21. To take bodily exercise. 22. To drink. 23. To set a trap. 24. To salute.

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Ex. 252.

What *aims* may be attained by the following *means?* Find as many aims as possible for each of the means. [See Explan. Ex. (4)].

1. To play. 2. To bow. 3. To open a window. 4. To write. 5. To go to market. 6. To visit a friend.

Ex. 253.

In Ex. 251, point out those words or phrases which designate the *means* through which *several aims* may be attained. Let the lesson be written as the following example. *To give presents,* may have the following aims: to

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incite to diligence; to reward; to obtain the love of others; to be esteemed generous; to obtain a favour; to get praise; to conciliate some one whom we have offended, &c.

Ex. 254.

Indicate as many means as possible, which may effect the following aims. For instances, see Explan. Ex. (3).

1. To protect from cold. 2. To acquire possession of a house. 3. To see various foreign countries. 4. To take an extensive view. 5. To divide an object. 6. To obtain glory. 7. To contribute to another's happiness.

Ex. 255.

Determine which of the aims mentioned in Ex. 250 may be attained by several means. *Example*—In order to recover a lost article, we may search for it ourselves, or employ others to do so for us; we may give public notice of our loss in the newspapers, by handbills, &c.

Good and Bad Aims and Designs. Final Aim. 183

EXPLANATORY EXAMPLES.

(1.) We may praise another, to incite him to continue in his good behaviour; to encourage him; to reward him; that the commendation bestowed upon him may serve as a stimulus to others, &c.

(2.) But we may also praise another, to obtain his good will; to receive some advantage from him; to encourage and confirm him in well-doing; or, insincerely, merely to render him despised and ridiculous.

(3.) When a person undertakes a journey, his aim is to reach some distant place; but his *design* in going may be quite different; for instance, to see a friend, to settle some

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business; to purchase, to sell; to enlarge his knowledge; to recruit his health; to make discoveries, &c.

(4.) A man travels to a foreign country, in order to become acquainted with it; which he is desirous of doing, that he may be enabled to judge whether it will be easier for him to acquire wealth, or more convenient to live there, than in his own country. He wishes to form a correct judgment, so that he may come to a decision whether he ought to settle in the foreign country or at home. He is anxious to arrive at a decision, in order to protect himself from want or misery.

(5.) The aim of a person who gives a present to another, is (as we will suppose) to incite him to industry; the aim of this incitement is, to increase his usefulness as a member of society; the aim of being useful is, to promote the prosperity of society, which is the means of conducing to the undisturbed cultivation of the intellect, and enlarges the power of doing good to others; the aim of mental cultivation and benevolence is, happiness and peace of mind.

184 EXPLANATIONS.

(1.) There are both *good* and *bad* aims. Our conscience tells us which are good and which are bad.

Question.—Which are the *good* aims in the preceding examples? Whicharethe *bad?*

(2.) He who can state *why* he wishes for anything, has *design* in what he does. The word *design* is often used synonymously with *aim*. There are good and bad designs, as there are good and bad aims. [See Explan. Ex. (1) and (2).]

(3.) An aim may itself be the *means* to another aim. An aim which is not the means to another aim, is called the *final aim*. [See Explan. Ex. (1), (3), (4).]

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EXERCISES. 185

Ex. 256.

Determine which are good and which are bad aims in the following :

1. A letter may be written to communicate important news to some one ; to mortify him ; to give advice ; to ask for advice ; to calumniate another ; to ask a favour for another ; to comfort ; to obtain a favour by flattery ; to express our thanks, &c.

2. A rich man may give alms, to obtain the praise of men ; from compassion towards the poor ; to incite others to beneficence ; for fear of being considered avaricious ; in obedience to the precepts of religion ; to protect from reprobation the unjust means by which he obtained his wealth, &c.

Ex. 257

What *designs* may a person have—1. In asking a question? 2. In going into company? 3. In seeking for retirement?

Obs. For each of these means several good and bad designs are to be stated.

Ex. 258.

Give from ten to fifteen instances taken from English or Bible history, in which *bad* designs prompted the actions.

Ex. 259.

Find some examples, in which one aim becomes the means to another aim, and for this purpose use the means and aims indicated in Ex. 251. [See Explan. Ex. (4), (5).]

Ex. 260.

Write a series of means and aims, in imitation of the Explan. Example (4). Let the first or nearest aim in each series be one of the following sentences :

1. Lord Beaconsfield went to Berlin. 2. The St. Gothard tunnel was pierced. 3. The Czar was assassinated.

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186 ## *Good, Bad, Suitable, Unsuitable, Adequate, Inadequate, Contrary, and Superstitious Means.*

EXPLANATORY EXAMPLES.

(1.) In order to become wealthy, some men are industrious, orderly, economical, honest, attentive to all they do, and to what is done by others, and endeavour to enlarge their knowledge.

(2.) Many men seek to become rich, by deceiving others, by flattery, by theft and avarice.

(3.) A certain farmer expected to enrich himself by sowing peas in his fields one by one, instead of scattering the seed; thinking that peas, thus sown, produce a more abundant crop than by the latter process.

(4.) A man hoped to obtain riches by procuring a magic wand, the possession of which he believed would enable him to discover where a certain treasure was concealed.

(5.) To preserve health, some persons think they should never go out of the house if the weather is in the least unfavourable, never open a window in winter, take little or no exercise in the open air, and carefully avoid all fatigue.

187 EXPLANATIONS.

(1.) Means which it is allowable to use, are *good* or *lawful means*. [See Explan. Ex. (1).]

(2.) Means which it is not allowable to employ, are *bad* or *unlawful means*. [See Explan. Ex. (2).]

(3.) Means which naturally would lead to the attainment of an aim, are called *suitable means*. [See Explan. Ex. (1).]

(4.) Means which contribute nothing to the attainment of an aim, are called *unsuitable means*. [See Explan. Ex. (3), (4).]

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(5.) Means which are used through superstition, or from a belief in impossible things, are called *superstitious means.* [See Explan. Ex. (4).]

(6.) Means which may, and often do, prevent the attainment of an aim, are called *contrary means.* [See Explan. Ex. (5).]

Obs. Superstitious means are always *unsuitable*, often *contrary.*

EXERCISES.

Ex. 261.

Judge of the means which are mentioned in the following sentences, for the attainment of the aims therein stated: 188

1. One man expects to strengthen himself by sleeping nine hours a day, by drinking strong liquors, and by eating of a great variety of dishes. 2. Another hopes to obtain honour and reputation by praising himself; by boasting about his wit and skill; and by undervaluing and defaming others. 3. A third seeks to acquire honour and consideration by the faithful and punctual discharge of the duties of his profession, by integrity, and by a kind and courteous behaviour to all. 4. The groom hopes to make his horses fat and sleek, by rubbing them every day with a rag torn from the coat of a man that was hanged. 5. A school-boy believed that he should make himself beloved by his master, by reporting to him every little impropriety which he observed in his school-fellows. 6. Saint Crispin, it is said, stole leather from the tanners, in order to make shoes, gratis, for the poor. 7. A labourer went under a large tree for protection during a thunderstorm.

Ex. 262.

Judge of the means indicated in the following sentences, for the attainment of the aims specified.

1. Some persons, when they have lost anything, move rapidly about, show much impatience if they do not immediately find it, and then at last search carefully for it. 2. Some persons expect to live in peace, by submitting in everything to others, never contradicting them, never blaming them, and by commending all they do. 3. Some men expect to find happiness and contentment by living in retirement and solitude,

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indifferent to securing the welfare of others, or to what is occurring around them. 4. In order to amass wealth, some men spend money, even for that which is most necessary, with reluctance; they eat unwholesome food, dwell in wretched abodes, work almost incessantly, and never allow themselves the least recreation. 5. As a protection against robbery, some secure their doors with locks and bolts, some pretend to be poorer than they really are, whilst others conceal their property in the ground. 6. There are some boys of so little principle, that, in order to escape punishment, they will not only deny their offences, but even seek to attach the blame to their companions.

Ex. 263.

Narrate several instances from English or Scripture History, in which good or bad means were employed for the attainment of certain aims.

After the foregoing lessons and exercises in observation and enumeration, in various modes of expression, and in some elementary logical notions, the pupil who has fairly mastered the subjects treated will be ready to begin writing essays with comparative ease, and will be enabled to express himself intelligently and clearly. The aim has been, to help him to get understanding and insight, and to train him to think clearly and attain distinctness in his notions of things. If this object has been gained, all his subsequent studies will be easier to him, the habit of methodical work having become fixed, and the receptivity of his mind thus materially increased.

THE END.

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